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COMMONWEALTH OF MASSACHUSETTS
DISTRICT POLICE REPORT

1903

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REPORT OF THE CHIEF

OF THE

MASSACHUSETTS DISTRICT POLICE,

FOR THE

YEAR ENDING DECEMBER 31, 1903,

INCLUDING THE

INSPECTION AND DETECTIVE DEPARTMENTS.



BOSTON :

WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
18 POST OFFICE SQUARE.

1904.

APPROVED BY
THE STATE BOARD OF PUBLICATION.



Commonwealth of Massachusetts.

OFFICE OF THE CHIEF OF THE DISTRICT POLICE,
BOSTON, Jan. 1, 1904.

To His Excellency JOHN L. BATES, *Governor of the Commonwealth.*

GOVERNOR: — I have the honor to submit a report of the duties performed by the District Police for the year ending Dec. 31, 1903.

Very respectfully, your obedient servant,

RUFUS R. WADE,
Chief of District Police.



Commonwealth of Massachusetts.

REPORT.

Chapter 108, section 2, of the Revised Laws, provides that the chief of the district police shall report in print on or before the first day of January in each year in relation to factories and public buildings. Accordingly, I have the honor to submit herewith my twenty-fifth annual report.

Since the establishment of the district police, in 1879, successive Legislatures have added to the number and variety of its functions. As originally constituted, the district police force numbered 16 men. At the present time the number of officers in the several branches of the force, including the chief, is fifty-eight, of whom thirty-seven are detailed for service in the inspection department and twenty-one are assigned for detective duty.

An inspection of the statutes relating to the district police will indicate the extent, character and importance of its duties. It will be seen that detective work is an important part of the functions of this force. The records of this office and the testimony of the Attorney-General and the prosecuting attorneys of the several counties will show that vigilant and effective service has been rendered in this direction. The record of work done by the detective department would be an incomplete statement, because it cannot always include the miscellaneous matters which are brought to the attention of the force, and to which heed must be given. In this connection I desire to state that the qualifications required to make an efficient inspector are not those demanded in approved detective work. The task of inspectors of factories

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and public buildings is of sufficient magnitude and importance to justify keeping it a distinct branch in this department. The assignment of those only who have special qualifications for the important duty of factory and other inspections has in the past resulted in a great degree of success in that part of our work. An instructive comparison might be made between the reports showing what the district police had done during the earlier years of its work, and the report herewith made.

LEGISLATION.

Among the important changes since my last report in legislation affecting this department are those contained in chapter 365, Acts of 1903 : —

AN ACT TO CONFER ADDITIONAL POWERS UPON THE MEMBERS OF THE FIRE MARSHAL'S DEPARTMENT OF THE DISTRICT POLICE.

Be it enacted, etc., as follows :

SECTION 1. Section two of chapter one hundred and forty-two of the acts of the year nineteen hundred and two is hereby amended by inserting after the word "year" in the eighteenth line, the words : — The deputy chief, said chief aid and said additional aids shall each have the powers of district police officers and may be detailed for service in the detective department by the chief of the district police or by said deputy chief, — so as to read as follows : — *Section 2.* A new department of the district police is hereby created, with the powers and duties heretofore conferred and imposed upon the state fire marshal, his deputy, clerk, assistants and aids. Said department shall be called the fire marshal's department, and there shall be assigned to it the following officers, who shall be appointed by the governor, each to hold office for the term of three years from the date of his appointment : — A deputy chief, who shall have all the powers and duties heretofore conferred and imposed upon the state fire marshal, and shall have charge of the said department under the direction of the chief of the district police, at a salary of twenty-four hundred dollars a year ; a chief aid, who shall have all the powers and duties heretofore conferred and imposed upon the deputy state fire marshal, at a salary of fifteen hundred dollars a year ; and not more than six additional aids, each at a salary of one thousand dollars a year. The deputy chief, said chief aid and said additional aids shall each have the powers of district police officers and may be detailed for service in

the detective department by the chief of the district police or by said deputy chief. The chief of the district police may appoint for service in said department a clerk and a stenographer, each at a salary of twelve hundred dollars a year. In the organization of the fire marshal's department any person now in the service of the state fire marshal may be appointed or employed without civil service examination. The chief of the district police may at his discretion exercise any of the powers and perform any of the duties of the deputy chief, and may at any time detail any of the members of the detective department of the district police for service in the fire marshal's department. The deputy chief shall submit the annual report of his official action to the chief of the district police, who shall transmit the same to the insurance commissioner.

SECTION 2. A deputy chief of the detective department of the district police shall be appointed by the governor from the members of the district police, who shall be paid an annual salary of twenty-four hundred dollars. The deputy chief of the fire marshal's department serving at the time of the approval of this act shall be preferred for such appointment, and if so appointed he shall, without additional compensation, also perform the duties of such deputy chief of the detective department.

SECTION 3. The deputy chief of the detective department shall, in case of the absence or disability of the chief, act as chief of the district police.

SECTION 4. One additional member of the district police, to be assigned to the inspection department, shall be appointed by the governor.

SECTION 5. This act shall take effect upon its passage. [*Approved May 18, 1903.*]

It will be seen by the above act that additional powers are conferred upon the members of the Fire Marshal's department.

It also provides that a deputy chief of the detective department of the district police shall be appointed.

It is gratifying to me that Your Excellency selected for the position Joseph E. Shaw, who since the establishment of the Fire Marshal's department has been deputy chief of said department. Mr. Shaw's wide experience in detective work is an assurance that the duties of deputy chief of the detective department of this force will be faithfully and efficiently performed.

EMERY WHEELS.

The inhalation of the air of a metal polishing or grinding room, on account of the operation of the emery wheel, is most pernicious in its effect on the health of those who are forced to breathe it. It is a fact that cannot be successfully disputed, that the mortality among grinders and polishers who are not protected against this poisonous element is very great. The last Legislature was asked to enact a law requiring the use of fans or blowers where emery wheels or belts injurious to the health of employees are used, and the following statute was enacted : —

[CHAPTER 475, ACTS OF 1903.]

Be it enacted, etc., as follows :

SECTION 1. Any person, firm or corporation operating a factory or workshop in which emery wheels or belts or buffing wheels or belts injurious to the health of employees are used shall, within three months after this act takes effect, provide such wheels and belts with a hood or hopper connected with suction pipes, and with fans or blowers, in accordance with the provisions hereinafter contained, which apparatus shall be placed and operated in such a manner as to protect any person or persons using any such wheel or belt from the particles or dust produced by the operation thereof, and to convey the said particles or dust either outside of the building or to some receptacle so placed as to receive and confine the said particles or dust.

SECTION 2. Every such wheel shall be fitted with a sheet iron or cast iron hood or hopper of such form and so placed that the particles or dust produced by the operation of the wheel or of any belt connected therewith shall fall or will be thrown into such hood or hopper by centrifugal force ; and the fans or blowers aforesaid shall be of such size and shall be run at such speed as will produce a volume and velocity of air in the suction and discharge pipes sufficient effectually to convey all particles or dust from the hood or hopper through the suction pipes and so outside of the building or to a receptacle as aforesaid.

SECTION 3. The suction pipes and connections shall be suitable and efficacious, and such as shall be approved by the district police.

SECTION 4. This act shall not apply to grinding machines upon which water is used at the point of grinding contact, nor to solid emery wheels used in saw mills or in planing mills or in other

wood-working establishments, nor to any emery wheel six inches and under in diameter used in establishments where the principal business is not emery wheel grinding.

SECTION 5. It shall be the duty of the district police and of factory inspectors, upon receiving notice in writing, signed by any person having knowledge of the facts, that any factory or workshop as aforesaid is not provided with the apparatus herein prescribed, to visit such factory or workshop and inspect the same, and for that purpose they are hereby authorized to enter any such factory or workshop during working hours; and if they ascertain, in the foregoing or in any other manner, that the owner, proprietor or manager of any such factory or workshop has failed to comply with the provisions of this act, they shall make complaint of the same in writing, before a court or judge having jurisdiction, and cause such owner, proprietor or manager to be proceeded against for violation of this act; and it is made the duty of the district attorney to prosecute all cases arising under this act.

SECTION 6. Any person failing to comply with any provision of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than twenty-five nor more than one hundred dollars, and in case of a second offence he shall be punished by the aforesaid fine, or by imprisonment in the county jail for a term not exceeding sixty days, or by both such fine and imprisonment. [*Approved June 26, 1903.*]

LABOR AND INDUSTRIAL LAWS.

The work of this department has been constantly increasing, not only along the lines of inspection as originally constructed, but including such additional provisions of the statutes as successive Legislatures have enacted. Much has been done to amplify and perfect the so-called labor laws, and consequently these add to the scope of the duties imposed upon the members of the district police.

At the time when the Massachusetts district police was constituted, now more than twenty-four years ago, the duties imposed upon it by law were comparatively few and simple. Our principal duties then comprised the enforcement of the laws relating to the hours of labor, the employment of children and the inspection of factories and public buildings. In this connection I mention the following, as showing the growth of legislation for the benefit of not only what are termed the industrial classes, but of the general public.

Among the many laws which the inspectors are now called upon to enforce are the following :—

The duties embrace the enforcement of the laws relating to the hours of labor; the protection of operatives from unguarded machinery; the employment of women and minors; the schooling of children employed in factories and workshops; the preservation of health of females employed in mechanical, manufacturing and mercantile establishments; reports of accidents in manufactories; safety appliances for elevators; provisions for escape from hotels and other buildings in case of fire; proper ventilation for factories and workshops, and uniform meal hours for children, young persons and women employed therein; the suppression of nuisances from drains, and provisions for water-closets, etc., for the use of each sex employed in factories and workshops, and various other sanitary regulations; the inspection of buildings alleged to be unsafe or dangerous to life or limb, in case of fire or otherwise; the submission to the inspector for approval of a copy of plans and specifications of any building designed for certain public purposes, as factory, workshop, mercantile structure, hotels, apartment houses, lodging or tenement houses, above a certain height; communication between engineer's room and each room where machinery is run by steam, in every manufacturing establishment; proper safeguards at hatchways, elevator openings and well-holes in public buildings, factories and mercantile establishments; forbidding the use of portable seats in aisles or passageways in public halls, theatres, schoolhouses, churches, public buildings, etc., during any service or entertainment held therein; requiring fire-resisting curtains, approved by inspectors, for use in all theatres, etc.; competent watchmen, lights in hotels, gongs or other proper alarms, and notices posted describing means of escape from fire in boarding and lodging houses above a fixed size, family and public hotels; fire-escapes on tenement or lodging houses three or more stories in height; prohibiting during working hours the locking of any inside or outside door of any building where operatives are employed; public buildings and schoolhouses, in respect to cleanliness, suitable ventilation

and sanitary conveniences; the weekly payment of wages by certain corporations to each of its employees; the inspection of uninsured steam boilers; the examination as to the competency of engineers and firemen in charge thereof; the enforcement of the act relating to the manufacture and sale of clothing made in unhealthy places; the enforcement of the act relative to the heating of street railway cars; the enforcement of the act requiring specifications to be furnished to persons employed in cotton, worsted and woollen factories; the enforcement of the act requiring the use of fans or blowers where emery or buffing wheels or belts are used; and sundry other matters not necessary here to be specified.

CHILD LABOR.

A wave of renewed interest in the question of child labor has recently swept over the country, owing largely to the abuses practised in the mills of the southern States. The very recent development of manufacturing interests in these States has preceded the passage of factory laws, and accounts for these abuses.

Massachusetts finds itself in the vanguard in protecting the interest of children in the labor world. In every report which I have had the honor of making since I have had charge of this department, I have taken occasion to dwell upon the evil of permitting children of tender years to labor in factories and workshops. Gradually the limit of age has been increased. The first enactment in this direction was in 1874, and the last enactment was in 1892, which provides that no child under the age of fourteen years shall be employed in any manufacturing, mechanical or mercantile establishment.

Each of the amendments to the enactment of 1876 has been recommended by this department, and has later met a cordial support in its enforcement. It will be seen that the factory legislation is strengthened by the compulsory school law, which requires every child under the age of fourteen to be enrolled in some school. The law puts the issuing of certificates giving age and attendance into the hands of the school authorities, and makes it the duty of the truant

officers to look after children under fourteen who are not attending school. It is no part of the duty of factory inspectors to issue such certificates or to verify such statements of age and attendance. Their duty is to require that such certificates shall be filed with the employer. As a matter of fact, however, there is good understanding between the school authorities and inspectors, so that mutual assistance characterizes their work. This mutual action insures practically a thorough enforcement of both the educational and the factory law as relates to the employment of children.

It is not to be wondered at that, in the irritable state of public interest roused by abuses in other States, there should have been rumors and reports of a lax enforcement of the law in Massachusetts. No better evidence that these reports and rumors are lawless could be asked for than the fact that all complaints of the illegal employment of children made to this department during the last twenty-five years have been thoroughly investigated, and generally found to be baseless. Especially is this true of recent years, as the law has come to be accepted and approved throughout the State. On the part of this department the inquiry into complaints has been equally prompt when the charge has been made anonymously.

As to the validity of the school certificates, if, among the thousands issued by the school authorities, who have ample means of verifying the age of children presenting themselves, there should occasionally be one where false baptismal statements had been made in order to procure a certificate, it would be monstrous to charge upon such authorities general carelessness.

I have stated explicitly the part which the school authorities have in permitting the child to leave school, and the part of the inspector to guard against any child's employment without having its required school attendance, because of the general ignorance concerning the different functions of the authorities. The method of dividing the State into districts, and putting each district into the care of resident inspectors, still further insures that the law is complied with. Every inspector makes a weekly report of each day's work

to the head office. In this way the inspector becomes familiar with his district, and the chief office is in close touch with the work all over the State.

This plan has been diligently followed for nearly twenty-five years, and makes it nearly impossible that any long-continued violations of the law should escape attention. There has perhaps never been a time when the law was more fully observed than at present; and it is safe to say in the history of the world there has never been a state where children were so secure of educational advantages and so protected against the greed of either parents or employers. The law has become fixed in the customs of society, — a part of its blood and bone, as it were. It remains for the State to keep its watchfulness, and to permit no lowering of its high standard.

The following copies of letters, received from the superintendents of Fall River, New Bedford, Lawrence and Lowell, show that they are constantly on their guard against deception, and their earnest endeavor to ascertain the true facts in every instance : —

FALL RIVER, MASS., Oct. 26, 1903.

MR. RUFUS R. WADE, *Chief of the District Police; State House, Boston, Mass.*

MY DEAR MR. WADE : — I have your letter of October 23, and in reply I beg to state that in Fall River we persistently do everything we can to prevent the employment of children who are under school age. We do not accept the statement of any parent or guardian in regard to the age of a child who presents himself for a work certificate. We take every pains to certify the statement of the parent, and if the school census, which is taken with a great deal of care, fails to corroborate the statement of the parent, we send for the records of the school, or for the certificate of birth from the city clerk, or the certificate of baptism from the church at which the child was baptized. In the case of children who are over fourteen years of age, and have just come to this country, we require an official certificate of the date of birth. Not long ago I was persuaded that certain certificates presented at this office had been forged, and now we require that certificates of birth of children of immigrants lately arrived shall bear the seal and signature of the American vice-consul of the place from which they come.

I beg to assure you that a great deal of the time at this office and an almost unlimited measure of care are taken to see that the certificates issued by our department are strictly in compliance with the law. I am not at this time ready to suggest any change in the present law; but if amendments are proposed, I shall be glad to consider them and give you my opinion as to their value.

Very cordially yours,

WILLIAM C. BATES,
Superintendent of Schools.

LAWRENCE, MASS., Oct. 27, 1903.

MR. RUFUS R. WADE, *Chief of the District Police, Boston, Mass.*

MY DEAR SIR:—I am in receipt of your inquiry of October 23. Permit me to say in reply that we exercise every precaution against misrepresentation or deceit on the part of applicants for labor certificates, and have every reason to believe that we have reduced to a minimum the vicious practices. Whenever we discover any irregularity the certificate is revoked.

In my last annual report I discussed briefly the subject of labor certificates. I am pleased to mail you a copy under another cover.

Yours sincerely,

J. E. BURKE,
Superintendent of Schools.

NEW BEDFORD, MASS., Oct. 26, 1903.

MR. RUFUS R. WADE, *Chief District Police, State House, Boston, Mass.*

DEAR SIR:—I am in receipt of your favor of October 23. You ask for my co-operation to enable you to refute statements made by representatives of labor that the statutes regulating the employment of children are grossly violated. I take pleasure in giving you the information I think you may desire, and will give you any other information that you may wish.

I did not understand that New Bedford was included in the charges made that the statutes regulating the employment of children were grossly violated; and in connection with the meeting of the textile unions, held in Philadelphia recently, I understood that the labor representatives stated that New Bedford had not violated the statutes regulating the employment of children.

Our method of issuing certificates is as follows: First, every labor certificate to children is issued from my office direct by my clerks and under my direct supervision. The clerk is instructed to require of the parent a certificate of birth duly acknowledged by the city clerk, town clerk, priest or minister of the parish, if it is possible to secure such certificate. We require applicants whose chil-

dren were born abroad to send abroad for these certificates, if there is a possibility of securing them. In case a certificate is presented signed by city clerk, town clerk, priest or minister, certifying to the birth or baptism of such child, and when any such certificate shows a child to be over fourteen years of age, the clerk issues a certificate, requiring every feature of the law in the way of oath by parent or guardian to be made. When there seems to the clerk to be the least doubt as to the age of the child, the case is referred to me, and I give the matter my attention. If in my judgment it is impossible to secure any further evidence than the census returns and the word of the parent or guardian, and I judge the child be of the age claimed for it by the parent or guardian, I order a certificate issued.

I know of no way by which the requirements of the statutes can be better administered in my office. Of course we find occasionally instances where the overseers or second hands employ children who do not have any certificate from this office. But those cases are rare, and it is usually found that the mistake is made by some new mill official, who has come from another State where the laws are not so stringent.

Now, as to your direct questions. First, as to what extent children obtain certificates through misrepresentation as to age or otherwise. I will say that, if I have not answered it already, I believe the cases are rare. Second, you ask if I advise any change in the present law relating to children; and, if so, what change. I do not think that I would modify the law, except in one particular. I would not permit children to work in manufacturing establishments earlier than fourteen at any time. But I would allow in the long summer vacations and other vacations children over twelve or thirteen years of age to work in mercantile establishments and light employment outside.

Yours very truly,

WM. E. HATCH,
Superintendent of Schools.

LOWELL, MASS., Oct. 31, 1903.

MR. RUFUS R. WADE, *Chief of District Police, Boston, Mass.*

DEAR SIR: — Your letter of October 23, asking as to our method of granting work certificates, etc., is received, and in answer I beg leave to report as follows: —

1. Applicants for such certificates must come to us with an employment ticket (sample enclosed) from a prospective employer, and accompanied by a parent or guardian, to receive any atten-

tion. If, then, the aforesaid parent or guardian testifies under oath to the age of the applicant, if the age so testified to is over fourteen, and if there is no reason to doubt the correctness of the statement so made, a certificate is granted. If, however, the applicant is not manifestly over fourteen, further proof is required, such proof being usually a record of birth. Such records are easily obtainable if the applicant was born in Lowell or in Canada, but are less easily secured when they must come from Greece, Russia, Syria or Armenia. In doubtful cases, however, we insist, and the applicant must wait unemployed (a waiting which is sometimes a great hardship) until the desired proof is obtained.

2. In answer to your question as to certificates obtained through fraud, I must admit that such fraud is doubtless possible, though the cases of it are, so far as I know or can judge, very few. I have never known positively of but one, and one other probable case is now under investigation. The fraud we most suspect takes the form of substitution. A child manifestly over age, a foreigner with an unpronounceable name, can properly get a certificate for himself, and it is very difficult for us or a prospective employer to detect the fraud, if this certificate is passed to a younger brother, or even to a friend, possibly for pay. If newspaper reports can be trusted, such substitutions have been worked on the civil service examiners in Boston, and on the examinations for admission to Harvard College; and we make no claim to infallibility or even to greater wisdom and skill than the examiners just mentioned, while the difficulties under which we labor are ten-fold greater than theirs. I am sure, however, that our work is done faithfully and conscientiously, and with as much success as can reasonably be expected.

3. I can suggest no improvement in the law, unless it be to make more clear and definite the employment tickets, so as to remove or lessen the possibility of a ticket obtained by one person being used to obtain a certificate for another. We always attach the ticket to the certificate, and if the ticket is full and complete, and if employers will see that the description fits the person presenting the certificate, then the possibility of substitutions will be prevented or greatly lessened.

Very truly yours,

A. K. WHITCOMB,
Superintendent of Schools.

COPY OF EMPLOYMENT TICKET IN GENERAL USE.

EMPLOYMENT TICKET.

*Law of 1888.**When*_____*Height*_____*Complexion*_____*Hair*_____*presents a certificate duly signed, I intend to employ*_____*Lowell, Mass.,*_____ *190*

Signature of intending employer or agent.

REGULATION OF MEAL HOURS.

In the earlier days of factory life a serious evil was the irregularity and insufficiency of the time allowed for meals. It was then a matter of convenience or hap-hazard, and the effect was necessarily more or less detrimental to health. Now, women and young persons, five or more in number, who are employed in the same factory, shall be allowed their meal times at the same hour, except that any such persons who begin work in such factory at a later hour in the morning than other such persons employed therein may be allowed their meal times at a different time; but no such persons are permitted to be employed during the regular meal hour in tending the machines, or doing the work of any other woman or young persons in addition to their own. No woman or young person must be employed for more than six hours at one time in a factory or workshop in which five or more persons are employed, without an interval of at least half an hour for a meal; but such person may be so employed for not more than six and one-half hours at one time if such

employment ends not later than one o'clock in the afternoon, and if he or she is then dismissed from the factory or workshop for the remainder of the day ; and the limit is extended to seven and one-half hours, when sufficient opportunity is given for lunch, and the day's work ends not later than two o'clock in the afternoon, if he or she is then dismissed from the factory or workshop for the remainder of the day. To insure regularity, it is required that a printed notice of the hours of labor and meal times shall be hung up in a conspicuous place in each factory.

The chief of the district police, if it is proved to his satisfaction that in any other class of factories or workshops it is necessary, by reason of the continuous nature of the processes or of special circumstances affecting such class, to exempt it from the provisions of the two preceding sections, and that it can be done without injury to the health of the women or young persons affected thereby, will authorize such exemption.

ELEVATORS.

Enlightened self-interest is supposed, in theory, to be a sufficient guarantee for protection against ordinary accidents ; but the experience of the State inspectors makes it clear that vigilance and minute inspection are needed safeguards. The inspectors have thoroughly canvassed as many cities and towns as the limited time would allow, and the results of such inspections have not always been of a gratifying import. Even in cases where an approved safety attachment has been applied, its liability to get out of order is such that frequent inspections should be made for the protection of those who own, lease or use elevators. What seems to be demanded, and in fact is required for the highest attainable degree of safety, is a contrivance simple in construction, sure in action, and that may be instantaneously applied. It must be strong, automatic, and ready for service at an instant's warning. If the shipper rope slips or breaks, or the hoisting machinery becomes disarranged or ineffective from any cause, the person in charge of the car or cab ought to be able to stop it at once, and hold it without shock or jar.

IN RELATION TO THE INSPECTION OF BOILERS, AND ENGINEERS' LICENSE LAWS.

The boiler inspection law, which has been in operation so many years without material criticism, may be considered as more than a fairly good law. No material change has been made in it since its first adoption. Boilers continue to explode all around us at the rate of nearly five hundred a year, while not a single steam boiler has exploded in this Commonwealth which was under the supervision of the State inspectors.

The engineer's license law, which has met with more or less criticism and some immaterial changes, still remains closely allied to the principles of the original statutes. This law is not perfect, and never will be, as has been before remarked, until all progress stops. There are some objectionable features in it which are susceptible of improvement, and in all probability would be corrected, could those most immediately interested agree as to what they are and what to substitute.

No fair-minded man can question the great advance in the standard of engineers in this State since this law went into effect. It has spurred them to efforts as nothing else ever would; and the average engineer to-day is familiar with methods and problems which previous to this law were known only to experts. Formerly very little attention was given by engineers to the economical adjustment of the valves of steam engines, and the indicator and the planimeter were instruments known only to the mechanical engineer and the technical student. Now they are as familiar almost as the steam gauge and the clock.

The literature to be found in engine rooms previous to this law was largely of the yellow-covered and sensational character; to-day there will be found in nearly every engine room a library of more or less pretensions on steam engineering and mathematics.

These things are positive evidence that the law in the main is a good one, and has come to stay.

CLOTHING MADE IN TENEMENT HOUSES.

During the year 1890 the public mind was wrought to a high pitch of indignation in consequence of the introduction of an entirely new system of employment in the clothing industry, commonly designated as the sweating system.

A careful investigation of the conditions under which clothing was being manufactured, particularly in the cities of New York and Boston, and intended for sale within this Commonwealth, fully justified the agitation which was demanding legislation for the suppression of this system of employment, and resulted in the enactment by the Legislature of 1891 of the law entitled "An act to prevent the manufacture and sale of clothing made in unhealthy places." No more humane law has been enacted within the history of labor legislation; and, as a measure in the interests of public health and safety, its importance is beyond dispute.

The sweating system in the clothing industry has been the subject of national and State legislative investigation, and the initiative of Massachusetts has been followed by similar legislation in New York, Ohio, Illinois and Pennsylvania.

That the tenement house system of manufacture had taken firm root within this State was verified by the reports of the inspectors assigned for the enforcement of the law; but by the vigorous application of the requirements of the law the proprietors of these so-called sweat shops were compelled to vacate the obscure attic and cellar of the worst form of tenement houses, where filthy rooms, extreme heat and stifling air were the rule, for rooms in buildings devoted to manufacturing purposes, where the wise sanitary laws of our Commonwealth could be effectively enforced, and where the employment of women and children could be regulated by our labor laws.

Experience gained in the enforcement of the law disclosed its deficiency in dealing with the most vital feature of the sweating system, and the one most dangerous to the public health; viz., the making and finishing of clothing by private families in their homes without restriction. To remedy this fault the law was amended in 1892, compelling private fami-

lies to procure a license before beginning work on wearing apparel of any description ; and an amendment to the law in 1893, imposing a fine of fifty dollars upon any person, firm or corporation giving wearing apparel to be made or finished in any tenement or dwelling house by any family not holding a license therefor. The conditions upon which a license is granted require cleanliness in apartments and surroundings, a notice to the inspector in case of removal and also in the event of the occurrence of contagious disease in the building in which the person holding a license resides.

Further perfecting amendments to the law were enacted by the Legislature of 1898, since which time no obstacle to its enforcement has been presented ; and we feel assured that as it now stands it is impossible for a tenement-house workshop to exist in this State, and that the conditions surrounding the manufacture of clothing are as securely safeguarded as is possible by human effort, unless, as is suggested by some, the manufacture of wearing apparel by private families in their homes be prohibited by law.

That the labor of enforcing the license provision of the law is no light one can only be appreciated when we consider the numerous branches of the clothing business in which the labor of families in their homes can be utilized, and the ever-changing circumstances of the people of our great cities. The opportunity for earning in this branch of labor has been so reduced by competition that the remuneration is attractive only during periods of extreme financial stringency, and is rarely permanent as a means of livelihood.

REPORT OF WILLIAM H. PROCTOR.

SIR : — The steamer “ Lexington ” was put in commission on the third day of May, and went into winter quarters on the fourteenth day of October.

Menhaden and squeteague have been plentiful in Buzzard’s Bay during the summer. During the month of September there has been a large fleet of boats in the bay, from which large quantities of mackerel were taken with hook and line.

Menhaden steamers have been numerous, cruising through

and in the vicinity of the bay, but there has not been any attempt to set a seine in Buzzard's Bay, to my knowledge. The presence of the steamer "Lexington" in Buzzard's Bay has the effect of making the fishing steamers operate in other waters, and as far as said bay is concerned the law has been observed to the letter.

The lobster law has been ineffective from the time it was enacted, for the reason that it is impossible to strictly enforce it. I would recommend a close season from July 4 to January 1 of each year, and a heavy penalty for any person who used any lobster traps between said dates.

SUMMARY OF INSPECTION WORK.

The records of this department show that 8,590 manufacturing, mechanical and mercantile establishments have been inspected since my last report.

Careful attention has been paid to the safety of elevators, and the reports of the inspectors show that 2,174 elevators have been inspected during the year.

The reports of the inspectors show that the number of young persons employed in manufacturing, mechanical and mercantile establishments and workshops is 18,816; male adults employed, 359,881; female adults employed, 205,768.

CLOTHING INSPECTION DEPARTMENT.

Summary of Licenses.

Inspections and licenses granted,	544
Inspections and licenses refused,	193
Inspections and licenses transferred,	101
Inspections and licenses renewed,	207
Inspections and licenses revoked,	163
Licensed and unlicensed tenements visited,	1,523
Total inspections and visits,	2,719
Licenses outstanding Oct. 1, 1903,	1,585

BOILER INSPECTION DEPARTMENT.

Summary of Examinations.

Licenses granted,	4,065
First class,	72
Second class,	264
Third class,	403
Special,	1,690

Firemen,	1,205
Low-pressure firemen,	46
Hoisting,	360
Steam fire engineers,	21
Licenses refused,	1,808
Licenses revoked,	14
Licenses renewed,	4,673

Summary of Inspections.

Boilers inspected,	2,448
Defects found,	5,783
Dangerous defects,	1,842
Boilers ordered repaired,	1,036
Boilers condemned,	30

VENTILATION OF SCHOOLHOUSES AND PUBLIC BUILDINGS.

Looking back for a period of over fifteen years, it seems incredible that there should be at the present time opposition to any rational plan of providing sanitary methods and suitable ventilation in public buildings and schoolhouses. Popular science has made familiar the evils of bad drainage, insufficient ventilation, and other sources and feeders of disease. To argue in the face of the lessons of universal experience seems to be as useless a task as an attempt to prove the multiplication table. No sane man knowingly drinks dirty water. Why should he breathe foul air? Is the pollution less objectionable because the means to prevent it occasion a little trouble and sometimes expense? But what shall be said of the daily infliction of bad air upon many thousands of school children, who, if they knew the perils they are subjected to, are powerless to escape them? In this connection I desire to call attention to section 54, chapter 106, Revised Laws.

SECTION 54. Every public building and every schoolhouse shall be kept clean and free from effluvia arising from any drain, privy or nuisance, shall be provided with a sufficient number of proper water-closets, earth closets or privies, and shall be ventilated in such a manner that the air shall not become so impure as to be injurious to health. The provisions of this section shall be enforced by the inspection department of the district police.

The enactment of this law placed upon the inspection department of the district police an important and onerous

task, the full performance of which has required much time and constant watchfulness. The above section called for careful information upon two important points upon the part of the inspection department, for a proper discharge of their duty under the same: first, when may the air in any public building or schoolhouse be properly considered "so exhausted as to be injurious to the health of the persons present therein?" Second, what should be the amount of fresh air supplied and foul air removed from any public building or schoolhouse, to keep the air fit for respiration and not injurious to the health of the persons present therein? Upon a correct and proper settlement of these two important questions must the action of the inspection department be based in the enforcement of the law.

Being at the outset unfamiliar with these matters, we did not undertake to proceed at random upon any impressions of our own received upon entering any public building or schoolhouse, but sought with much care information from the best authorities thereupon, with the following results:—

First, that the purity or impurity of air is determined by the proportions of carbonic acid gas found present therein. Its excessive presence indicates the presence of other injurious matter in excess. Air is admitted to be pure when it is found to contain only about 4 parts carbonic acid gas in 10,000. Of course it cannot be expected that air can be kept up to this standard of purity in public buildings or schoolhouses occupied by a large number of persons constantly exhaling impurities. Certainly the nearer it can be approached, the better; but we find authorities agree that air which does not contain more than from 8 to 12 parts of carbonic acid gas in 10,000 is not especially injurious to the human system. Drs. Parkes and Chaumont have laid down the rule that, when the air of a room has a perceptibly musty, unpleasant odor to a person entering it from without, the air is unfit for respiration, and will sooner or later produce disease; but we have not considered it expedient to proceed upon our sense of smell (as upon this principle no two persons would agree), but where there has been the least doubt regarding the condition of the air, we have caused a scientific test to be applied.

Secondly, in relation to the fresh air supply and foul air removal, we have found in our researches quite a difference of opinion among eminent authorities regarding the amount necessary to securing good ventilation; but, as valuable progress has been made in this matter, as in almost everything else, we feel ourselves justified in accepting as our guide the more modern authorities. Dr. John S. Billings, one of the latest, and recognized as one of the best, authorities on ventilation, says:—

Assuming that all the fresh air is to enter through the ducts provided for that purpose, and that we are to deal with substantial buildings, I would advise that heating surface, foul and fresh air flues and registers be provided for an air supply of one cubic foot per second per person, for rooms which are to be occupied constantly. When the room is to be occupied but three or four hours at a time, and is thoroughly aired in the interval, the amount may be reduced to three-quarters of a foot per second, or 2,700 cubic feet per hour. This, for instance, is a proper allowance for school-rooms, halls of assembly, theatres, etc. I certainly do not believe that 30 cubic feet of air per minute per person in rooms constantly occupied will secure good ventilation. Under such circumstances, the air will become markedly foul, and will exercise a very deleterious influence upon the health of the occupants, who will be especially liable to consumption and allied diseases, if they continue to remain in it for any great length of time, and will suffer from headache, loss of appetite, want of energy, etc., from even a comparatively short exposure to such vitiated atmosphere as this will produce.

Other authorities fix the amount at about 3,500 cubic feet per hour per person. An allowance of 3,000 cubic feet per hour per person is given by Dr. Parkes, and this seems to have been accepted by most modern sanitarians. Mr. Robert Briggs, C.E., in his paper on the ventilation of halls of audience, read before the American Society of Civil Engineers, says:—

It seems pretty well established, for rooms continuously occupied by persons either in good health, or at least not subject to offensive disease, that 30 cubic feet of air per person per minute, if of proper temperature and humidity, if adequately introduced and removed into and from rooms which have a cubic capacity of

not less than 1,000 cubic feet per person, will healthfully and satisfactorily ventilate such rooms.

It will be noticed that Mr. Briggs' requirements are less than others quoted. But against that should be placed the large space per person stipulated. The Board of Health of the city of Boston, in their report for the year 1887, say, in relation to public schools : —

There ought to be such space for each pupil, and such frequent changes of air, as will keep the room free from perceptible odor without producing uncomfortable drafts of air. To do this, you must give each pupil about 3,000 cubic feet of fresh air hourly.

In a lecture delivered by Prof. F. W. Draper before the teachers of public schools, he said : —

The ordinary conditions of the unrenewed air of a schoolroom are quite enough to astonish us, if we stop a moment to think of them. For there are not only the inevitably vitiating effects produced by respiration and the constant activity of the skin in persons who are healthy and cleanly, but the additional exhalations proceeding from unclean bodies, from ill-odored mouths, from decaying teeth, from dirty clothing, too frequently accompanying the city school boy or school girl to the crowded room which is the scene of their daily tasks.

The effects of breathing and re-breathing an atmosphere thus charged with harmful matters are not far to seek. Every one of us must have experienced at some time or other the noxious influence of an air thus vitiated. We all remember the unpleasant closeness, the headache, languor, and sometimes nausea, resulting. We are told of the poisonous effects, in the form of fever, coming from larger doses of this irrespirable air. There is another important thought in this connection. Besides these direct effects of inhaling a foul atmosphere, an indirect and not less significant consequence is recognized. Disease may be powerless in its assaults on the perfectly healthy human system, while it may find lodgment in a body which bad air, by lowering the tone and depressing the vital vigor, has made an easy victim of epidemic influence. Many a case of sickness proves fatal on account of an unperceived prostration of the sufferer's strength by continuous exposure to an atmosphere impure from exhalations from the body; and many children yield easily to contagious disease through the devitalizing effects of breathing an unwholesome schoolroom air.

It is an indisputable fact that the air is never found absolutely pure in densely populated places or in occupied apartments. In such localities it is always a question of degree. The act of respiration, and the emanations from the person, which, although insensibly, are constantly taking place, vitiate it to a serious extent. Practically each person vitiates 3,000 cubic feet of air in an hour, and hence this amount must be drawn out in the same length of time, and its place supplied by an equal quantity of pure air.

For example, take a schoolroom capable of holding 50 pupils; whether the room is large or small, or the ceiling is high or low, the quantity of air in the room is of little moment when compared with the total quantity required when the room is occupied. The best authorities tell us that not less than 30 cubic feet of air per minute is required for each person, to maintain even a reasonable degree of purity; taking, then, the low standard mentioned per minute for each individual, 50 persons would require 50 times 30, or 1,500 cubic feet per minute. Take the dimensions of the ordinary schoolroom occupied by 50 pupils, which will vary but slightly from the following figures, — length, 30 feet; width, 28 feet; and height, 12 feet, — and we find the cubic contents to be 10,080 feet. Dividing this sum by 1,500, the amount of air required per minute by the occupants of the room, we find as the result less than 7, representing the number of minutes during which the air of such a room would retain a reasonable degree of purity without being changed by the renewal of pure air. Regardless of the size of the room, we should supply to 50 persons occupying the same 1,500 cubic feet of air per minute, and this amount should be the minimum.

It would seem that there could be no misapprehension as to the scope of this act or the exact meaning of this section. A public building or schoolhouse may not be in such a filthy and unwholesome condition as to call for the interference of the Board of Health; yet its ventilation may be radically bad, its drains or privies defective and foul, its air laden with vile effluvia injurious to the health of the persons therein.

The history of the legislation in Massachusetts concerning the so-called industrial population, taken as a whole, from the period when the ten-hour law was enacted to that of the latest statute relating to sanitary provisions, shows that no theory or scheme of alleged improvements has secured the attention of the Legislature until a solid basis of facts was presented for consideration.

It has always seemed reasonable that, since a large portion of the time of young children is spent in the school-room, the proper conditions for health and comfort should be secured at any cost. The rooms should be large enough to prevent overcrowding; they should be kept clean, properly heated, supplied with an abundance of sunlight and pure air, cheerful in all their appointments, and free from contamination of every sort. If the air of a schoolroom is loaded with foul odors, and so poisonous that its effects are visible in the sickly and languid faces of the scholars, they might as well be at once dismissed into the open air, and the attempt to educate be abandoned until the conditions are radically changed.

Impure air, defective drainage, overcrowding and like evils not only undermine health and impair vigor, but are serious impediments to the work of teaching. The too common impression upon this matter of ventilation is that the adoption of any effective system necessarily involves enormous expense; and that there is no alternative but to employ some complicated and costly method, or to rely upon the antiquated and senseless custom of reducing temperature and furnishing fresh air by flinging open windows and doors.

The inspectors during the past fifteen years have not only obtained knowledge of facts as to the actual condition of the schoolhouses in the State, but have sought, with much care, information from the best authorities accessible to them.

Expert testimony substantially agrees as to the elements of danger which may be usually expected under given conditions. Analysis of air, properly made, shows with accuracy the proportion of vitiated elements therein; and, while it cannot be rationally expected that the sanitary conditions of public buildings and schoolhouses should be always up to

the highest standard of purity, it is the duty of this department to insist that the law shall be strictly complied with by all whom it embraces.

VENTILATION PRACTICALLY CONSIDERED.

One of the most important matters to be considered in the ventilation of a schoolhouse or other occupied building is the proper circulation of the air admitted or forced into the rooms.

In the ordinary method of admitting the fresh air at seven or eight feet above the floor, the utmost economy in ventilation is only attained when all the air supplied to the room is brought down to the breathing plane before removal. Some ventilating engineers appear to think that to secure good ventilation in a schoolroom it is only necessary to supply an amount of air sufficient to theoretically keep the impurities down to an approved standard; and that the question of proper circulation of air, and proper arrangement, size and location of inlets and outlets, on which such circulation so largely depends, are matters of little importance. If it were only necessary to force in and take out the air at any convenient point and at any velocity, it would not require an expert to design an effective system of ventilation. Unfortunately, the results obtained by the designers of such systems do not come up to the desired standard.

The regulations of this department allow a difference of three degrees in temperature between any two points in the breathing plane in the occupied portion of a schoolroom. It is a common occurrence for the inspectors to find five or six degrees difference in rooms, with badly located inlets and outlets, where the supply of air is abundant for good ventilation, with a corresponding variation in the amount of carbonic acid found at different points in the room. With the proper arrangement of all parts of a system such variations do not appear. The careful examination and scientific tests made by the inspectors of this department easily show the ratio of effectiveness of any system of ventilation, and the plans drawn by them, and exhibited from year to year in my annual reports, show how the best work is being accomplished.

BUILDING INSPECTION DEPARTMENT.

REPORT OF INSPECTOR JOHN T. WHITE.

Class No. 1. District No. 1.

SIR:—In compliance with orders, I have the honor to submit the following summary of my work as inspector of public buildings for the year ending Oct. 15, 1903.

Plans of buildings received,	60
Directions given for changes in egress, means of preventing spread of fire and ventilation,	59
Number of inspections of buildings made,	271
Orders given for changes in buildings,	39

The number of plans filed, as given in this summary, affords but little indication of the amount of work done in the examination of plans. It is frequently the case that several plans are submitted by architects for the same building; each plan also includes the plans for ventilation. As a general thing, from two to three or more plans for that work are submitted for examination and approval by the engineers or contractors. The necessary correspondence and consultations with architects, committees and other interested parties make up a large amount of office work. Owing to the large district covered by a State inspector of buildings, considerable amount of time is also taken up in travel, as he may be all day in inspecting and in going to and returning from one building.

As in years past, I have to report continued progress in all that pertains to my work; better egress, better means of preventing spread of fire, better ventilation in all new buildings erected during the year, and also many improvements in older buildings.

REPORT OF INSPECTOR HENRY J. BARDWELL.

Class No. 1. District No. 1.

SIR:—I respectfully submit a report of my work in this district during the past year.

Plans of new buildings received:—

Apartment and tenement houses,	39
Factories and additions,	18
Hotels,	2
Fire stations,	1
Students' dormitories,	1

DESIGN FOR DIRECT-INDIRECT RADIATOR. DRAWN BY INSPECTOR
JOHN T. WHITE.

This radiator is designed to be used in small halls or in churches, where it may be easy to provide for a strong exhaust leg of a ventilating system, but difficult to arrange for a straight indirect method of heating and supplying air. Almost any direct radiator may be used, or a coil of pipe. The radiator is first cased in metal, and may then be finished in wood in any way desired.

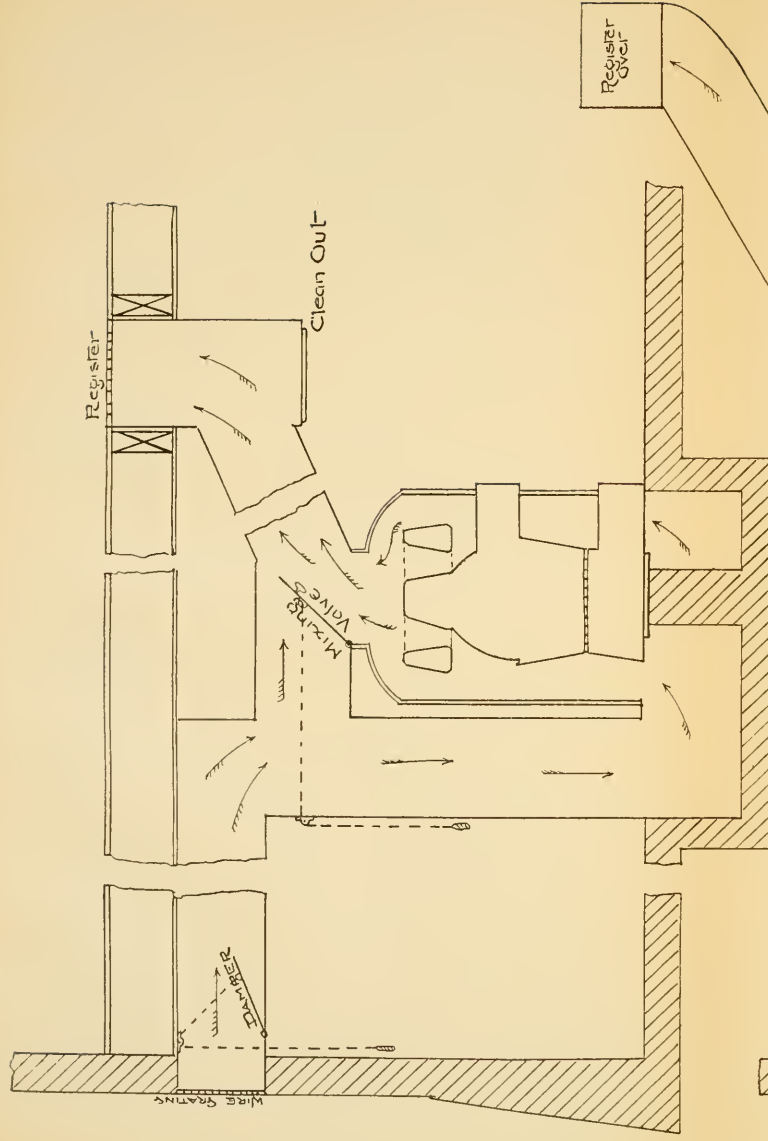
The fresh-air opening has an area of 2 square inches for each square foot of radiation; but the supply of air from outside may be controlled by damper, as shown, which can be held in any position. The inside damper is always open or shut. When open, and the air is taken from the room, the effect is of course nearly the same as a direct radiator. Such a radiator, with 100 square feet of surface, has been found to provide 500 cubic feet of air per minute under only fairly favorable conditions.

DAVIDER
/

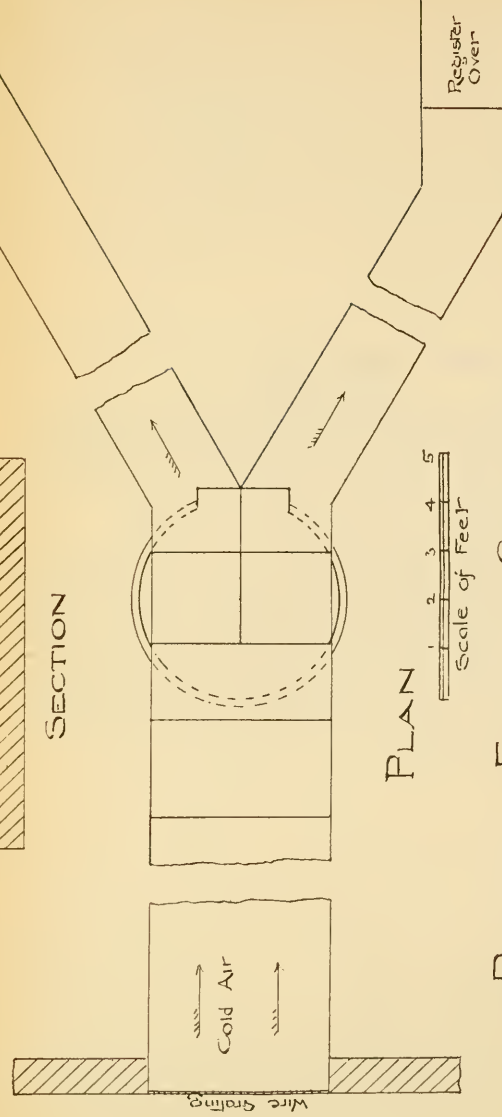
DESIGN FOR SETTING A PORTABLE FURNACE. DRAWN BY INSPECTOR
JOHN T. WHITE.

This drawing shows a method of setting a portable furnace in a small hall or in a church, where the registers are necessarily placed in the floor. In such cases, when the room is too warm, the usual remedy is to close the register, and thus shut off the supply of air, throwing all the heat back on the furnace, increasing the danger from fire and possible injury to the pipes and castings.

The registers here shown have no valves, and the temperature of the incoming air is regulated by a mixing valve in each duct, as shown. There is a damper for controlling the supply of outside air, and a rotating register can be provided if desired. The cold-air and warm-air pipes are much larger than are usually provided. There is a pit under the furnace about 2 feet deep, — an essential feature for good work. If any small rooms are to be heated, branches can be taken from the large pipes with switch dampers to control the flow of air.



SECTION



PLAN FOR FURNACE SETTING
SHOWING ARRANGEMENT FOR MIXING VALVES

• John T. White • Inspector •

Changes recommended on new buildings : —

Outside fire-escapes,	20
Other improved ways of egress,	8
Orders for fire-stopping, brick party walls, etc.,	35

The fire-escapes were placed as follows : —

On factories,	6
On apartment and tenement houses,	13
On hotels,	1

Inspection of old buildings : —

Hotels,	19
Apartment and tenement houses,	29
Lodging houses,	42
Halls,	24
Factories,	43

Outside fire-escapes were ordered for old buildings as follows : —

On apartment and tenement houses,	22
On lodging houses,	13
On factories,	13
On halls,	5

Summary.

Plans of new buildings received,	61
Changes recommended,	49
Inspections of old buildings,	157
Written orders given,	104
Supplementary inspections of new buildings,	165
Supplementary inspections of old buildings,	235

REPORT OF INSPECTOR JOSEPH A. MOORE.

Class No. 1. Districts Nos. 2, 3 and 6.

SIR : — I have the honor to submit a report of the work done by me during the past year.

The greater part of my work cannot well be reported in tabulated form. The number of inspections made and orders given indicate but a small part of my work. Much time is taken up in the examination of plans and specifications for new buildings or changes in old ones, especially where suitable heating and ventilation is to be installed. Frequently several plans for the same building are examined, where only one is filed with the inspector. Committees, owners, architects and engineers require and receive, as they are entitled to, the attention and advice of the inspector, and many inquiries by letter are answered.

The inspection of buildings in process of construction and after completion calls for many visits. Inspecting a building and ordering changes made does not complete the inspector's duty, as he must see that the work is properly done and in accordance with the requirement of the department. The inspection of dangerous buildings is a matter that often requires careful attention and exercise of an inspector's best judgment.

The testing of heating and ventilating apparatus requires much time during cold weather, as contracts are often let for this work with the required guarantee that they will meet the requirements of this department, and that final payment is not to be made till the inspector has approved the work.

Summary.

Plans received,	106
Changes recommended,	98.
Inspections made,	359
Written orders given,	37

REPORT OF INSPECTOR EDWIN Y. BROWN.

Class No. 1. District No. 4.

SIR: — I have the honor to submit a summary of the work done by me during the past year.

The plans of buildings received have been carefully gone over, and the necessary recommendations made; architects and builders consulted, and the buildings in process of construction visited as occasion required.

Complaints as to dangerous buildings have been thoroughly investigated, the usual inspection of buildings made, and many public buildings visited for various reasons.

Summary.

Plans received: —

Apartment houses,	11
Schoolhouses and additions,	9
Amusement buildings and halls,	7
Factory buildings and additions,	2
Churches,	2
Public library,	1
Gymnasium building,	1
Club house,	1
Boarding house,	1
Changes recommended and required,	28
Buildings inspected,	206
Orders given,	53

DESCRIPTION OF PLANS FOR HEATING AND VENTILATING A SCHOOL-
HOUSE. DRAWN BY JOSEPH A. MOORE, STATE INSPECTOR OF
PUBLIC BUILDINGS.

The building to be constructed of red brick, with terra-cotta trimmings, slated roof and copper gutters.

There are six class rooms of standard size, 28 by 32 by 12 feet, also two small rooms in the second story for the use of the teachers.

In the basement are three rooms, also fuel and cold-air rooms.

The seats in four class rooms are arranged to receive light from the left and rear, and in two rooms the light is chiefly from the left.

Each door from the class rooms to the corridors has a large centre panel of heavy glass, and hinged transom lights are placed above the doors.

The corridors are fifteen feet wide, and the pupil's clothing is to be hung on special racks on the sides.

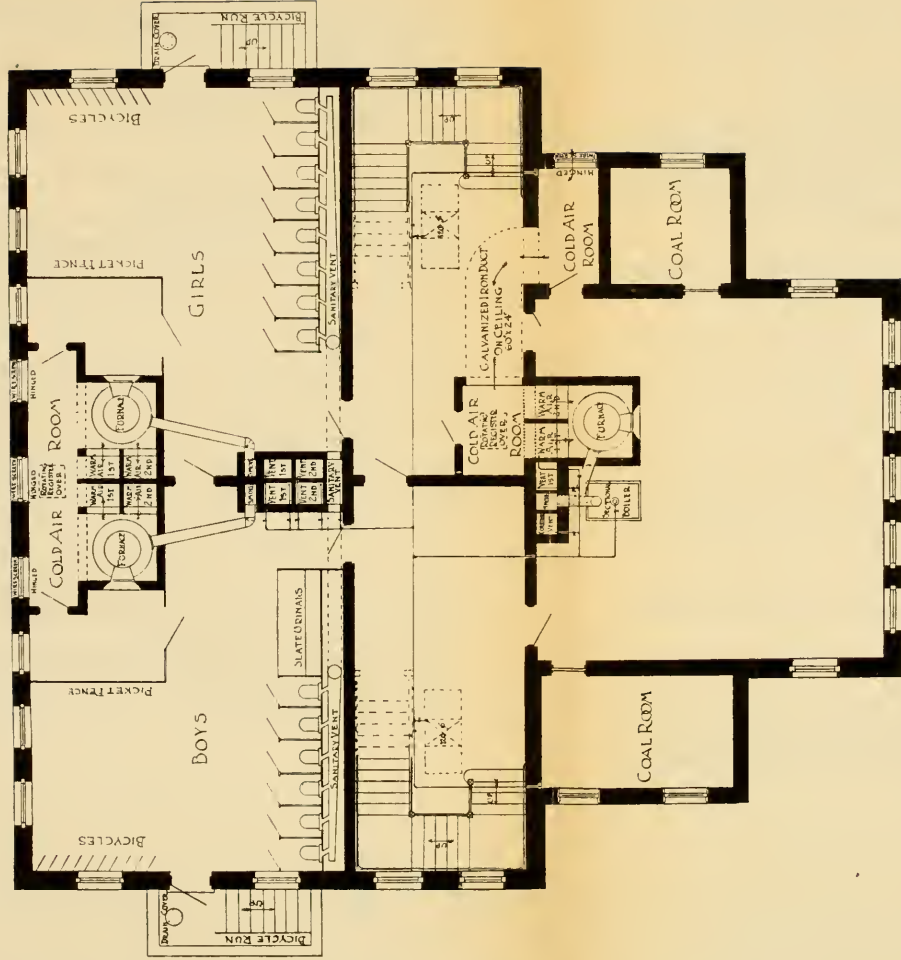
The warm fresh air is taken into the class rooms through openings 30 by 36 inches, covered with wire grills, and 8 feet above the floor.

The warm-air flues are of brick, 24 by 36 inches (6 square feet) area. Each warm-air flue is provided with a galvanized-iron mixing damper, operated by a chain in the class room, by means of which the temperature of the incoming air may be regulated without materially reducing the supply.

The foul air is taken out at the floor level, through openings 24 by 30 inches (5 square feet) area. Wire grills cover these openings.

The foul-air flues from the class rooms are each of brick, 24 by 30 inches area.

Each foul-air vent in the building, except the sanitary vents, is provided with a galvanized-iron damper, to regulate or shut off the outflow when desired. These dampers should be closed when the rooms are not in use.



SCALE OF FEET

• SIX ROOM SCHOOL •

• BASEMENT •

• SHOWING HEATING & VENTILATION •

• BY INSPECTOR JOSEPH A. MOORE •

1903

In the vent flue from each class room, and about 1 foot above the top of the opening from the room, are placed 20 square feet of cast-iron radiators.

In the corridor and sanitary vents there are in each 15 square feet of the same kind of heating surface.

The building is heated by a combination of furnace and steam heat.

The six class rooms are heated by three brick-set furnaces, two rooms being heated from each furnace.

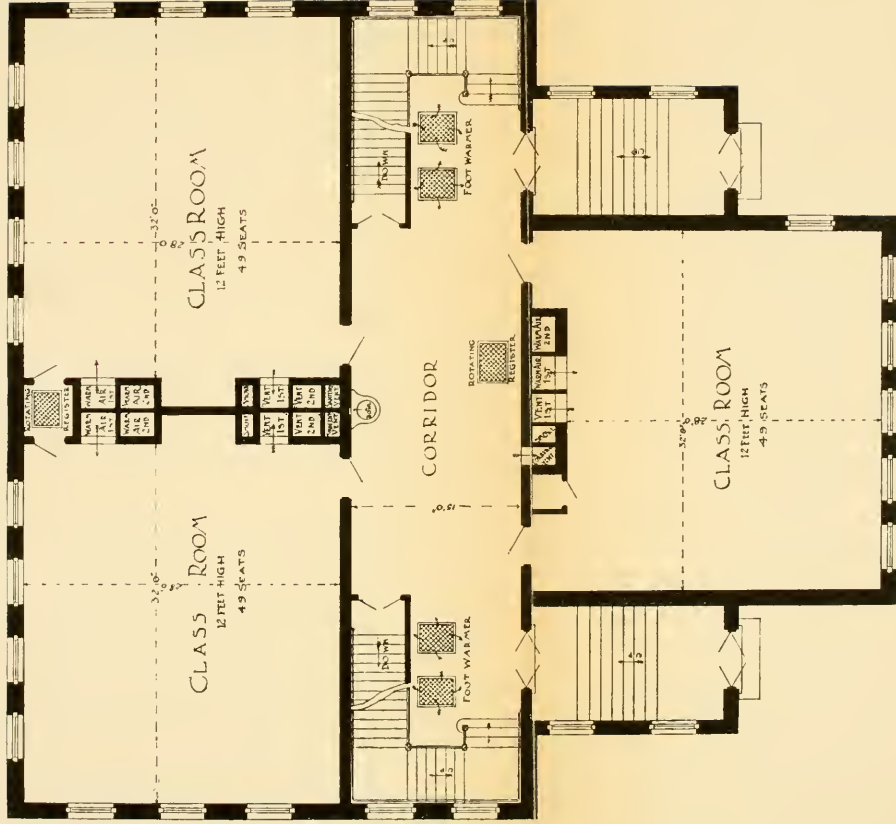
A sectional cast-iron boiler is also provided for heating the two foot warmers in the lower corridor, the teachers' rooms, and providing heat for the vent flue heaters. If desired, the boiler may be of sufficient size to warm the basement rooms by overhead lines of $1\frac{1}{4}$ inch steam pipe.

By the use of this small boiler very satisfactory results are obtained, and the number of fires reduced from what would be required if coal-burning stack heaters and an additional furnace to heat the corridors were used.

In the closet between the two class rooms on the first floor and in the lower corridor are two rotating registers for re-heating the air when the building is not occupied, thus making a decided saving in the amount of fuel used. These rotating registers should *never* be used when school is in session.

The ventilation of the sanitariums is through the fixtures, a 4-inch diameter seat vent being provided for each closet. These seat vents and the urinal vent enter a galvanized-iron vent pipe leading to the heated brick sanitary vent flue.

Much better results are obtained in the sanitary rooms when the ventilation is through the fixtures than when a special vent opening from the room is provided.

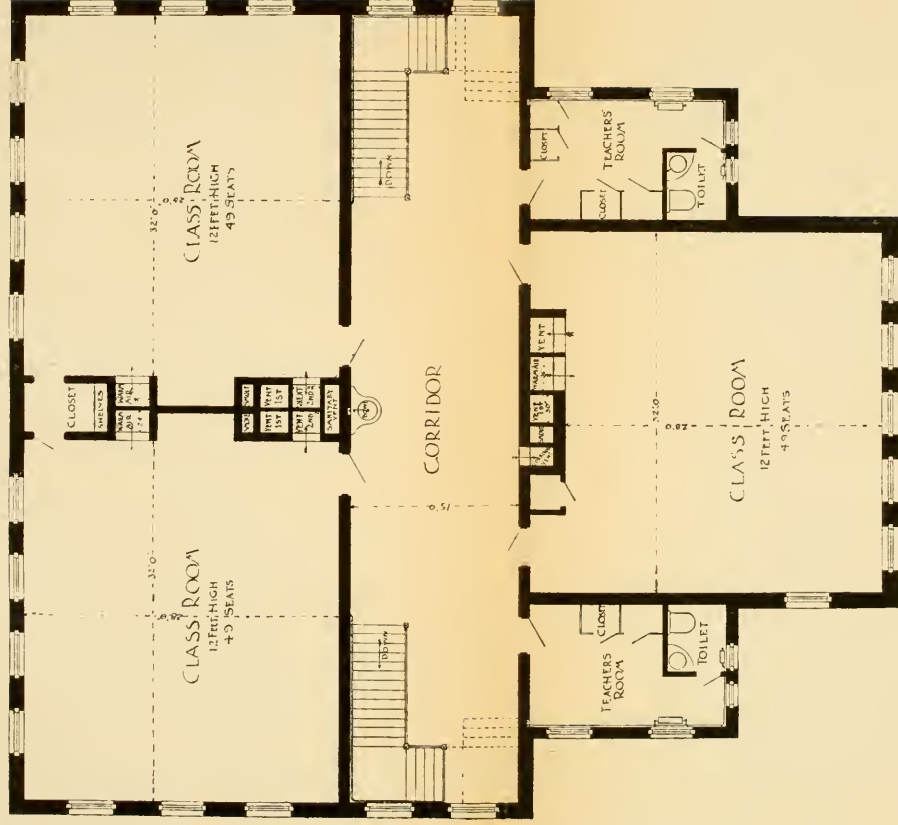


SCALE OF FEET

SIX ROOM SCHOOL
FIRST STORY

SHOWING HEATING & VENTILATION
BY INSPECTOR JOSEPH A. MOORE
1903





3" = 10' 0"
SCALE OF FEET

• SIX ROOM SCHOOL •
• SECOND STORY •

• SHOWING HEATING & VENTILATION •
BY INSPECTOR JOSEPH A. MOORE
1903.



REPORT OF INSPECTOR JOSEPH M. DYSON.

Class No. 1. District No. 5.

SIR:—In compliance with your order of September 17, I have the honor to submit the following report of my work as an inspector of public buildings during the past year.

I append hereto a summary of the work done, as far as it can be shown; the greater part of said work cannot well be given in tabulated form. Much time is spent in visiting buildings in process of construction, more especially schoolhouses, theatres and public buildings, to see that the work is done in accordance with the plans and specifications as filed in this office; also much of my time during the year has been given to assisting the inspection of factories, in enforcing the laws appertaining to the employment of labor, elevators, etc., in factories and workshops.

The work on ventilation increases each year, and there have been no school buildings constructed or plans submitted but what have been provided with some means of ventilation, and the changes recommended have been cheerfully complied with.

Summary.

Plans received for new buildings,	58
Changes ordered or recommended,	43
Plans filed for heating and ventilating public buildings, .	47
Inspections made of factories and public buildings, . .	316
Written orders given,	37
Compliance with orders,	32
Orders not completed,	5

REPORT OF INSPECTOR WARREN S. BUXTON.

Class No 1. District No. 7.

SIR:—I have the honor to submit my twenty-second annual report of work done in District No. 7, which comprises Hampden and Hampshire counties.

It is impossible to give a clear and detailed account of all the work done, as much time is necessarily spent in an advisory way, and in other ways. Nearly all new buildings are inspected from three to six times or more during their construction. This is done in order to have the work to prevent the spread of fire done well. If this is poorly done, it is like the chain with one poor link,—the whole is no better than the poorest part. However, I am much

gratified with the improvement made from year to year in this respect. Much of the work of last year on new buildings was carried into this. The reinspection of old buildings I find is quite necessary, as oftentimes the fire-escape is rendered useless by rubbish and household goods, and the door is so fastened that it would be impossible for any one to escape quickly in case of fire. However, I am glad to state that the obstructions to such means of egress are growing less each year.

It is a great satisfaction on my part to be able to report the improvement from year to year in the work done for safety of life and limb, and the universal appreciation of the general public of the work done by this department.

Summary.

Plans of new buildings received during the year:—

Apartment houses and tenement blocks,	18
Factories and workshops,	14
Dormitories,	3
Churches,	3
Schools,	4
Business blocks,	8
Hospitals,	3
Public halls and clubs,	4
Libraries,	3
Hotels,	1
Total,	61
Changes, fire-stops, egress and ventilation,	52
Orders given,	25
Old buildings reinspected,	94
Hotels,	41

REPORT OF INSPECTOR ANSEL J. CHENEY.

Class No. 1. District No. 8.

Together with this report I herewith submit a summary of the work performed by me in District No. 8, Class No. 1. There has been some delay in getting the plans of buildings that are expected to be deposited with the inspector, and his approval of the same obtained before the building is commenced. The parties who are to build often begin operations before the plans are perfected, and sometimes after they get under way with the building see changes

that they wish to make ; and so in some cases the plans are not in my office until the building is nearly completed, although they may have called my attention to them and I may have been all over them with the architect, discussed many of their features, and made changes to comply with the laws. Architects usually had much rather obtain our ideas and suggestions before the plans are completed than change them afterwards. I must say that some architects that I come in contact with seem more desirous of complying with the law than of following out their own inclinations and ideas, — this of course after I have convinced them that I have the right idea and construction of the law. Occasionally I come across one that seems to know all about the laws and my duty in regard to them ; and I have some trouble in convincing him that he doesn't understand my duties any better than I do, although he may know how to construct a building, so far as the lines of symmetry, artistic design and architectural construction are concerned.

The inspection of buildings, as in years past, occupies a great deal of time ; and the work is not completed when you have inspected the building and issued your orders, if any were necessary. If you were unable to see the owner or agent of the building at the time, and found it necessary to issue an order, oftentimes a letter is received from them in a few days, acknowledging the receipt of the order, and saying that “ there is something about it that they don't just understand, and won't you please meet them at the building, where you can explain to them just what is desired to be done.” This makes two visits to the building before they commence to do anything ; then you must examine the work after it is done ; and, if not satisfactory, another visit must be made after they have fixed something that was not properly done in the first place, — all of this occupying the time of the inspector.

The inspection of new buildings during their construction is on similar lines. It is seldom that the fire-stops are all in when I am notified to come and examine the fire-stopping, and several visits to each new building are necessary before it is completed, in order to be sure that some important place has not been neglected, which would jeopardize the whole structure in case of fire.

In 1901 a law was passed providing that all elevator wells built after Jan. 1, 1902, should be constructed in a certain manner, and all of the construction work and devices should be approved by the inspector of factories and public buildings. There being no provision compelling a plan of said elevator to be submitted to the inspector, as a consequence, elevators are constructed in my dis-

trict, and I know nothing of the fact, or how they are being built, until they are completed. If the law in relation to elevators provided that plans must be submitted to the inspector, as now required of builders, the inspector would then have some knowledge of what was being done.

The common practice of building elevator wells open, and filling the space around them with grill work, could be greatly improved and the danger in case of fire materially reduced, if such elevator wells were constructed with wire glass set in metal frames. This would not obstruct the light to any great extent, would be a protection to the various floors of the building, other than the one where the fire occurs, and would enable elevators to be run through a smoky corridor a much longer time without endangering the operator or occupants than they can be run as at present constructed, in case of fire. This might mean a great deal to the occupants of many of our high office buildings, hotels and factories, where many people know no other way out of the buildings except by the elevator, — the way they came in. Oftentimes we see accounts of a fire in a building, where the elevator was run until the smoke drove the operator from his post, and those remaining in the building had to get out as best they could, or be overcome with the smoke and perhaps lose their life, while, if the elevator could have been run a few more trips, all could have been taken down in safety. Fire-escapes could of course be resorted to, but how many would be able to find the fire-escapes under such circumstances? Certainly not all of the occupants of some of our large hotels and office buildings.

I have met with very little opposition in the performance of my duties or having orders complied with, and have had to resort to the court in but one case during the year. In that case the man was found guilty and fined twenty-five dollars. He appealed, and when the case came up in the superior court he agreed to comply with the order, and the case was continued until the next term, to give him time to do so.

I have had several complaints of dangerous buildings, and in all cases but one have had the buildings torn down or made safe. In that case the building was not dangerous within the meaning of the law, and I so notified the town authorities.

My associate, Inspector Sheehan, has called my attention to several places which he found in making his inspections, where the egress was obstructed or insufficient, and I have immediately attended to them.

Summary.

Plans received,	61
Hotels and additions,	4
Apartment houses,	7
Tenement houses,	20
Mercantile buildings,	4
Offices,	2
Lodging houses,	2
Public halls,	2
Mills,	6
Factories,	14
Recommendations : --	
Fire-stopping,	10
Additional fire-stopping,	17
Fire walls,	7
Additional egress,	7
Smoke stops in corridor,	5
Buildings inspected,	272
Orders issued,	72
Orders complied with,	67

REPORT OF INSPECTOR HENRY SPLAINE.

Class No. 1. District No. 9.

SIR :— I respectfully submit herewith a tabulated report and a summary of inspections made and other work performed by me during the year now closing.

I have to do with hotels, apartment houses, boarding and lodging houses, dormitories, factories and workshops during their construction, and afterwards to visit them from time to time, to see that advantages gained during construction are maintained. The object of carefully observing the erection of these buildings is to secure proper egresses, proper fire-stopping and ample means to extinguish fire.

When not employed on the foregoing class of work, I turn my attention to the inspection of the buildings already occupied, to note whether the responsible persons continue to keep the egresses in serviceable shape, and the means to extinguish fire accessible and ready.

In the enforcement of the laws applicable to both old and new buildings, it becomes necessary to expend much valuable time

visiting those in course of construction, in order to secure all the safeguards possible under the law for the future occupants; while, as regards the older or occupied buildings, frequent visits are made, independent of inspections, in consequence of reports, complaints or requests, for the purpose of seeing that the proper conditions for safety, etc., are being maintained.

Summary.

Plans received and approved: —

Of hotels,	1
Of apartment houses,	19
Of dormitories,	1
Of factories,	8
Buildings inspected,	60
Orders and requests sent out,	79
Certificates as to capacity and fitness of egresses,	79
Visits, independent of inspections,	390
Orders and requests complied with,	79

REPORT OF INSPECTOR F. W. MERRIAM.

Class No. 1. District No. 10.

SIR: — I have the honor to submit the following report of work performed by me during the past year, both tabulated and summary.

The number of plans of new buildings filed at my office is less than usual, and the number of public and school buildings is far less than the average, owing probably to the excessive cost of construction.

Several school buildings have been greatly improved during the year, and many improvements have been considered, which will probably be carried out next year.

Special attention has been given to the sanitary appliances of public and school buildings, and I am pleased to note the interest taken by the public officials in this important line of work.

Summary.

Plans filed,	18
Recommendations made,	12
Buildings inspected,	51
Orders issued and complied with,	23
Special reports given,	8
Visits of examinations,	126

DESCRIPTION OF PLANS OF LANESBOROUGH CENTRE SCHOOL.

The original floor plan shows the usual style of a two-room village school, which stood with the end to the street, the entrances on each side.

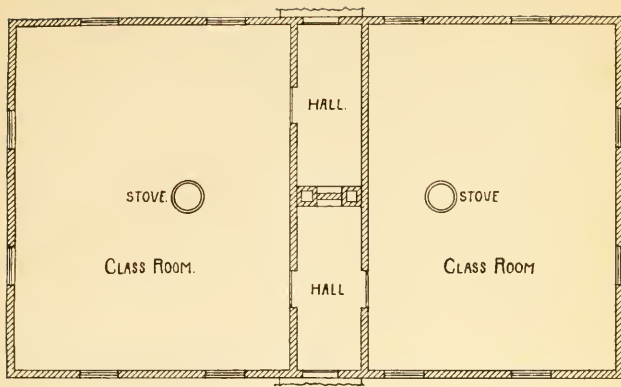
The rooms were of average size and good height, heated with direct circulating stoves, but no ventilation.

In remodeling the building the past season it was turned one-fourth around, provided with a front entrance with coat corridor, using the original halls for the ventilating and heating apparatus, storage and back entrance (see remodeled floor plan), and raised a suitable height to give basement for fuel, storage and sanitarines, when circumstances will permit (see basement plan).

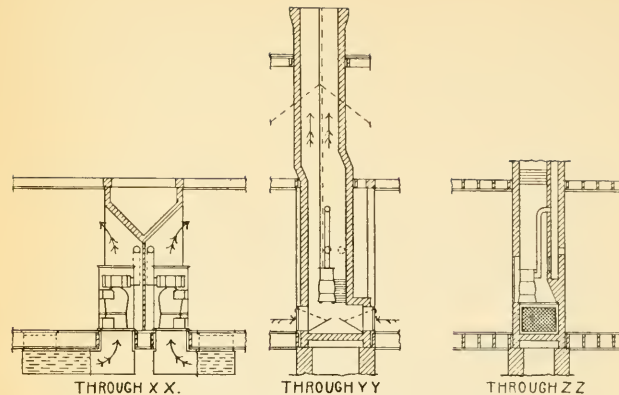
The method of ventilating and heating the class rooms consists of the usual aspirating flue of approved size, with necessary heater and check dampers; and jacketed stoves set in bevel top alcoves, with suitable air supply and circulating registers.

The sectional views show in detail the jacketed stoves, alcoves and supply ducts, and the aspirating flue.

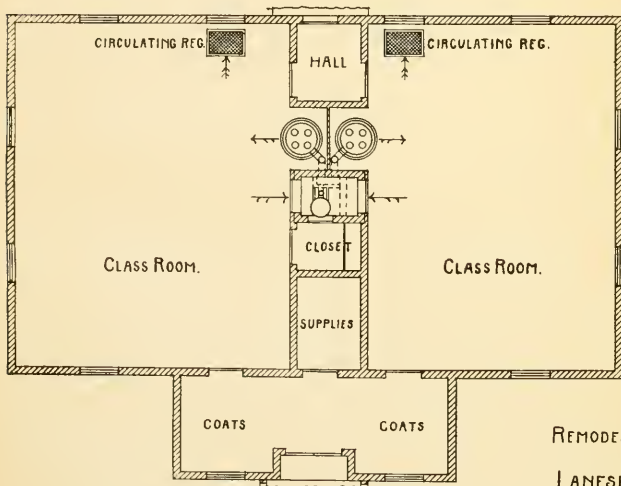
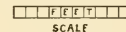
The corresponding letters on basement plan give their respective locations.



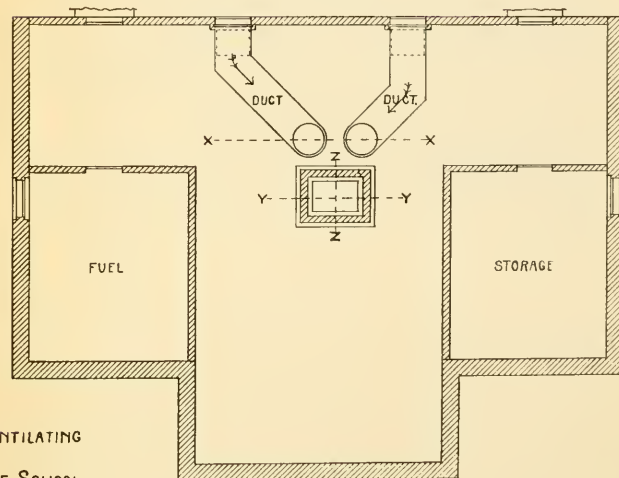
ORIGINAL FLOOR PLAN.



SECTIONAL VIEWS



REMODELED FLOOR PLAN.



BASEMENT PLAN

REMODELING AND VENTILATING
OF
LANESBORO CENTRE SCHOOL.
FRED'K W. MERRIAM, INSPR.

VENTILATING OF MASONIC HALL, NORTH ADAMS.

The plans only show such portions of the building as are necessary to illustrate the method of ventilating the hall in the new Masonic quarters, North Adams, Mass. The hall occupies about one-fourth of the entire floor space of the quarters.

Sheet 1 is the floor plan; sheet 2 the attic plan; and sheet 3 shows sectional views; the corresponding letters of sheet 2 indicate locations fully.

Referring to the plans, the following letters will explain: *A* is an electric motor; *B* and *C* are counter shafts, with cone pulleys for varying the speed of the fans; *D* is the main line of shafting; *E* and *F* are 42-inch B. F. Perkins & Son's V. fans, the former for the exhaust and the latter for the supply; *G* is a Hunter Machine Company's disc friction clutch, for disconnecting the supply fan, changing the method from double mechanical to that of mechanical exhaust; *H* is a switch damper for reversing the circulation; *I* and *I* are dampers for closing the supply and discharge ducts when the hall is unoccupied; *J* and *J* are damper chains; *N-N* show indirect heating surface; *O-O* are the feed and return pipes and valves for the heating surface; and *P-P* are register faces in platform steps.

When heat is necessary, or when both fans are used, the air is taken and discharged through metal ducts 8 feet above the roof,

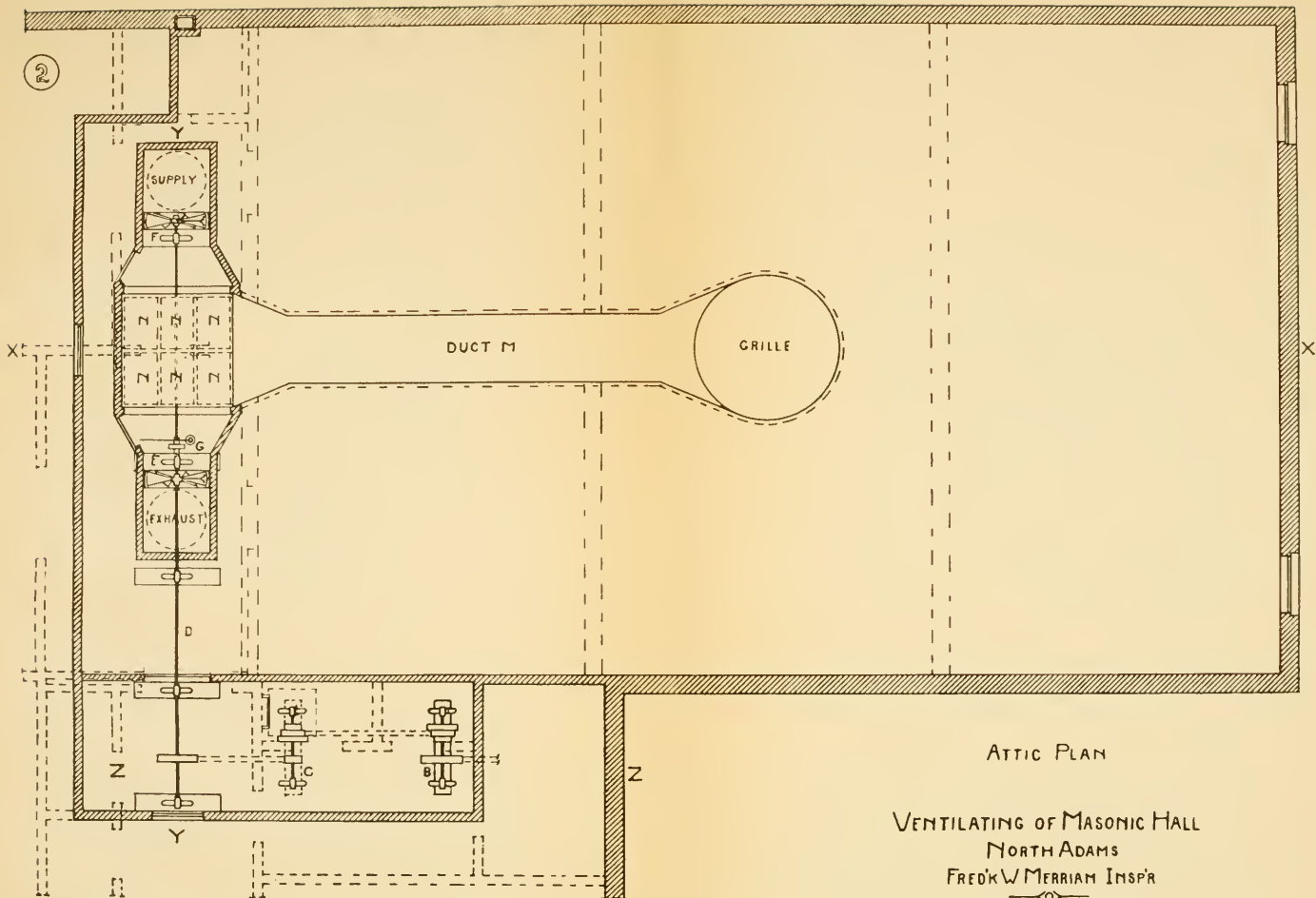
the supply passing through the heating surface and duct *M*, entering the hall through a large circular grill in the centre of the ceiling, at a very slow velocity; the exhaust is through grills near the floor, and duct *K*.

In warm weather, and when the exhaust fan only is used, the air is taken and discharged as above, with additional supply through duct *L*; and by changing the switch damper, the circulation is reversed, the exhaust being through the ceiling grill and duct *M*, and the supply from each end of the hall.

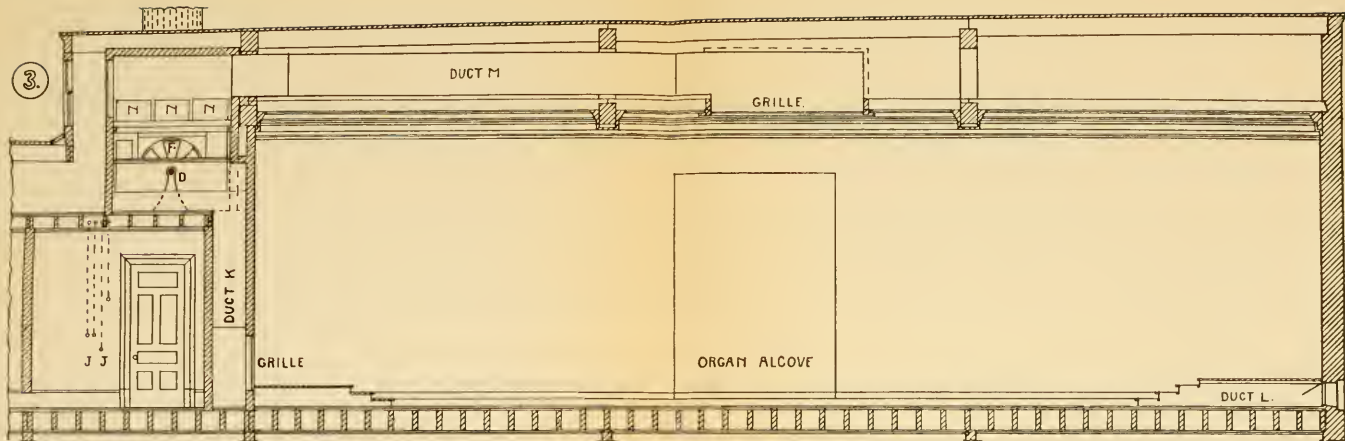
The speed of the shafts and adjustment of the fan blades are such as to exhaust and supply the amount of air equal to the cubical contents of the hall every six, nine and twelve minutes, as per cone pulleys used. The mechanical parts are so placed or enclosed that the working of the apparatus is practically noiseless, and the controlling devices are all conveniently located.

The banquet and social rooms have extra large ceiling grills and globe ventilators, with suitable dampers and chains.

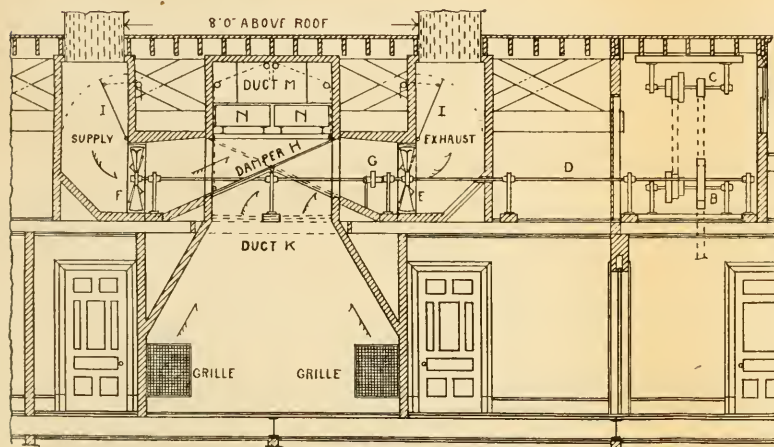
The hall has four sections of direct wall radiation, and the banquet, social and other rooms have regular cast-iron direct radiators, all sufficient to maintain a temperature in their respective rooms of 70° F. in coldest weather. The steam is supplied from the general heating boilers of the building.



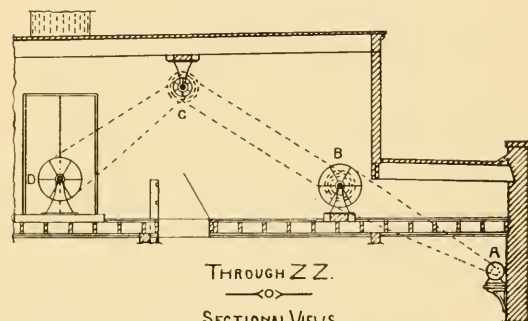




THROUGH X X



THROUGH Y Y.



SECTIONAL VIEWS

VENTILATING OF MASONIC HALL. NORTH ADAMS.

FREDK W. MERRIAM INSPR

1 2 3 4 5 6 7 8 9 10



FACTORY INSPECTION DEPARTMENT.

REPORT OF INSPECTOR CHARLES E. BURFITT.

District No. 1.

SIR: — I have the honor to submit my report of District No. 1, ending Oct. 15, 1903. You will find each city and town separately reported as to the number of inspections made and orders given in factories and workshops.

In addition to the work shown in summary in District No. 1, I was detailed to assist the inspector of District No. 5, he being confined at home by sickness. I was on duty in this district nine weeks. I also have visited a large number of mercantile establishments, looking after the hours of labor, and seeing to it that the fifty-eight-hour law was being complied with. I have visited ninety public halls and churches, looking after the ways of egress, and have issued thirty-four orders.

In regard to child labor, would say that I have failed to find in District No. 1 a single child under the age of fourteen years working in a factory. I admit that a few children between the age of fourteen and sixteen have been found working in factories without school certificates during vacation, their employers not informing themselves of the changes in the law, although they have been furnished with same. I will say that the wording of the law is misleading, as one may see by the reading. Chapter 106, section 28, reads, "No child under the age of fourteen years shall be employed in any factory, workshop or mercantile establishment;" then it goes on to say, in the same section, "No such child shall be employed at work performed for wages or other compensation, to whomsoever payable, during the hours when the public schools of the city or town in which he resides are in session, nor be employed at work before six o'clock in the morning, or after seven o'clock in the evening." The above section, in my opinion, is misleading to most people; but if they would read the next section (section 29), they would see for themselves that no child under sixteen years of age could be employed legally in any factory, unless the employer keeps on file an age and schooling certificate.

Factory inspection, as carried on from year to year, allows the inspector a large field of employment. At the first glance, as a novice starts to do the work required of an inspector of factories, he is apt to think he needs very little instruction; but he soon finds that, if he is not proficient in the laws governing his duties,

he will get into trouble. He must use good judgment in what he orders, and take an interest in the duties he may have to perform.

Summary.

CITIES AND TOWNS.	Inspections.	Males employed.	Females employed.	CHILDREN BETWEEN 14 AND 16 YEARS.		Elevators inspected.	Orders given.
				Males.	Females.		
District No. 1.							
Acton,	3	63	1	-	-	2	5
Ayer,	10	236	48	1	1	5	9
Ashby,	2	16	-	-	-	1	1
Arlington,	6	122	-	-	-	3	5
Belmont,	3	120	10	-	-	1	-
Cambridge,	154	8,875	5,035	111	237	150	122
Concord,	4	233	128	2	-	2	-
Everett,	23	1,903	300	32	14	8	24
Groton,	6	95	21	-	-	1	3
Hudson,	15	1,423	657	31	23	15	25
Littleton,	4	75	58	-	-	2	4
Lexington,	2	44	27	1	-	-	1
Melrose,	13	721	736	29	3	8	10
Medford,	15	618	43	6	2	7	12
Malden,	48	1,540	1,298	34	12	29	29
Maynard,	2	1,438	795	36	33	11	2
Pepperell,	5	458	99	2	-	8	7
North Reading,	3	23	-	-	-	-	-
Reading,	13	256	190	-	2	3	9
Sudbury,	1	16	-	-	-	-	-
Shirley,	4	239	162	17	13	3	5
Stow,	1	65	26	2	1	-	1
Stoneham,	15	874	607	22	4	12	17
Somerville,	50	3,599	512	62	22	30	29
Townsend,	5	119	-	-	-	1	1
Woburn,	31	1,353	141	14	-	23	26
Winchester,	13	1,062	101	19	-	6	9
Waltham,	36	3,598	2,850	47	44	16	26
Weston,	3	86	-	-	-	-	-
Wayland,	2	308	67	5	-	3	2
Wakefield,	14	789	772	23	37	21	7
Wilmington,	1	30	-	-	-	1	1
Totals,	507	30,427	14,684	496	448	377	392
District No. 5.							
Worcester County,	121	11,350	6,000	418	449	116	130

REPORT OF INSPECTOR JOSEPH HALSTRICK.

District No. 2.

SIR:—I herewith submit the following report and summary, which includes the number of inspections made in each city and town in the district assigned me, including number of persons therein employed.

I am pleased to state that the observance of the requirements of the law relative to posting legal time notices of the hours of labor for women and minors, providing certificates for children employed between the ages of fourteen and sixteen, guarding dangerous machinery, locking doors of any building, wherein operatives are em-

ployed, during the hours of labor, etc., has been quite general; in fact, the various factory laws are usually promptly complied with.

Summary.

Inspections,	902
Orders issued,	277
Elevators inspected,	79
Children between fourteen and sixteen years of age employed, .	1,073
Males employed,	34,117
Females employed,	18,015
Total employed,	53,205

Number of inspections in each city or town:—

Boston,	749	Milford,	31
Ashland,	3	Medway,	10
Bellingham,	3	Millis,	3
Franklin,	16	Mendon,	2
Framingham,	17	Natick,	26
Hopkinton,	2	Needham,	8
Holliston,	3	Southborough,	1
Hopedale,	1	Wellesley,	4
Marlborough,	23		

REPORT OF INSPECTOR ARLON S. ATHERTON.

District No. 3.

SIR:—In accordance with your instruction, I herewith submit a brief summary of my work for the past year.

In a district like this, where changes are continually going on, nothing but frequent inspections can keep it in good condition. The larger part of the district being in Boston, there are but comparatively few elevators under my control, and these are in good condition; and I am pleased to report that no accidents have occurred on any of them the past year. There have been but few complaints of violation of the fifty-eight-hour law, all of which have been immediately investigated, and found in most instances to be due to a misunderstanding of the law, both employer and employed supposing they had the right, where extra compensation was given for the same.

Much time has been given during the past year to chapter 183, Acts of 1902, in regard to certain minors, the inspector often being called upon to interpret the law. This statute requires that practically all minors shall have some kind of certificate: if between fourteen and sixteen years of age, the regular age and schooling certificate; over sixteen and under twenty-one (be they

college graduates or illiterate minors), either a certificate that they can read at sight and write simple sentences in the English language, or, failing to do this, an evening school certificate and attendance card, *if said minor resides in a city or town where evening schools are maintained*, in either case the certificate to be given by the superintendent of schools, the school committee, or some one designated by them. This, in a district like Boston, where the labor is drawn largely from towns where evening schools are not maintained, causes an immense amount of work and much dissatisfaction. For instance, I go to a factory where minors over sixteen years of age are employed, and find that perhaps one-half of the number reside in a city or town where evening schools are maintained; these minors must have on file either a certificate of literacy or the evening school certificate, while those residing where evening schools are not maintained must be passed by.

Four weeks of the year I was on special duty in Worcester County, and during the month of September was assisted in my district by Officer Ryan.

In my summary I have accounted only for visits made on regular inspections, hundreds, which were made on compliance or otherwise, not being shown.

Summary.

Inspections,	926
Orders given,	823
Males employed,	21,218
Females employed,	12,694
Total employed,	33,912
Minors between fourteen and sixteen years of age,	935
Elevators inspected,	82

CITIES AND TOWNS.	Number of Inspec- tions.	Orders issued.	Males employed.	Females employed.	Minors between 14 and 16 Years.
Boston,	799	627	11,626	6,952	339
Brookline,	11	7	565	192	8
Newton,	17	24	1,268	541	37
Watertown,	25	28	2,084	1,576	63
Worcester County,	74	137	5,675	3,433	488
Totals,	926	823	21,218	12,694	935

REPORT OF INSPECTOR MALCOLM SILLARS.

District No. 4.

SIR : — I herewith submit a tabulated report of the work done in my district during this year. I have had few complaints of violations of law during the year. The law in regard to women and children in mercantile establishments has taken considerable time.

Section 35, chapter 106, Revised Laws, as amended by chapter 183, Acts of 1902, requiring all minors, while evening schools are in session, to have a certificate signed by the school committee, or some one acting for them, that they can read and write in English, has taken some time, and has been a hardship to the minors. Many graduates of the high school have had to leave their work and get certificates that they could read and write.

I have inspected 48 elevators, all there are in this district; and they were generally found in good repair. The elevators in Boston, East Boston and Charlestown (also the means of egress from factories) are by law placed under the building inspectors of Boston. There have been three fatal accidents in my district during the year, all in elevators, also all in Boston.

The sanitary conditions of factories are good. I find all orders are complied with without friction. Very few complaints of any kind have been received during the year. Each complaint has been examined at once and revised.

I gave several perfecting orders on elevators, also on the guarding of machinery. Changes are constantly going on requiring new orders. The projecting set screw on the collars of shafting has about become a thing of the past.

There has not been any complaint about weekly payments, or in regard to street car heating, or working motormen or conductors more than ten hours in twelve. The fifty-eight-hour law for women and minors is working smoothly, and with very few complaints. During the summer months a great many factories work only to 12 noon on Saturdays. This gives their employees a half holiday. Many factories work fifty-three or fifty-four hours a week, the year round.

In closing, I can say there is a marked improvement from year to year in factories, all tending to benefit the conditions of the employees.

There are not many children at work in my district, only 369 in all, 222 boys and 147 girls, under sixteen years. The law I find to be generally observed by manufacturers. But all or many of them have the opinion that during school vacation a school certifi-

cate is not required; and many of the children found without certificates were only working during vacation, and I found three under fourteen years of age.

Summary.

	Boston.	East Boston.	Charlestown.	Chelsea.	Revere.	Winthrop.	Totals.
Inspections,	347	89	86	96	5	1	624
Orders given,	263	46	61	94	4	1	469
Males employed,	5,623	2,281	2,234	4,008	163	5	14,314
Females employed,	3,886	234	568	1,533	17	-	6,238
Boys under sixteen years of age,	134	6	14	66	2	-	222
Girls under sixteen years of age,	79	2	11	55	-	-	147
Total employed,	9,722	3,523	2,827	5,662	182	5	21,921
Elevators inspected,	-	-	-	45	3	-	48

REPORT OF INSPECTOR CHARLES A. DAM.

District No. 5..

DEAR SIR:—I have the honor to submit my report of duties performed in Berkshire, Franklin and Worcester counties during the year. Inspections of mercantile establishments and visits to manufacturing establishments are not included in tabulated or summary report.

As regards the child labor law and its enforcement, I would say that the inspector has much to contend with, for there are yet many instances where the employers of labor do not fully understand the laws on the employment of children. Many employ children pending the procuring of the proper certificate, and then forget all about it until attention is called to the matter. Many have the impression that children can be employed without a certificate during the vacation of the public schools, and some employ those under fourteen years of age during that time. This belief is not confined to employers alone, but to superintendents of schools as well as school committees. In some cases certificates are issued to children under fourteen years for the vacation; such certificates are found on file. The children being sent out may give the impression, to those not aware of the facts, that the laws are not obeyed, or that the inspector is not doing his duty. This condition requires many explanations of the law, that it may be fully understood, and the offence not repeated.

The law regulating the hours of labor of women, and minors under eighteen years of age, still requires explanation for the benefit of some. The impression appears to be that, if the employees work only fifty-eight hours, the law is complied with. Some are of the opinion that, if the mill is stopped for any reason, the time can be made up.

The sanitary conditions are good, when we consider the number employed. There are some desired improvements which are receiving attention.

Accidents caused by operating machinery have been few. Most of the injuries were caused by the carelessness of the person injured; the fact being that, the more familiar with the machine, the more apparent carelessness.

In conclusion, I would say that I hope and expect improved conditions the coming year.

Summary.

Inspections,	605
Orders issued, Berkshire and Franklin counties,	49
Compliances, Berkshire and Franklin counties,	49
Orders issued, Worcester County,	598
Compliances, Worcester County,	598
Verbal orders, Worcester County,	849
Children between fourteen and sixteen years of age,	2,937
Males employed,	42,046
Females employed,	19,132
Total employed,	61,178
Elevators tested,	40

District No. 10, Berkshire and Franklin counties: —

Adams,	16
Buckland,	2
Cheshire,	6
Clarksburg,	1
Colrain,	8
Conway,	3
Dalton,	11
Deerfield,	2
Erving,	6
Great Barrington,	5
Greenfield,	16
Lee,	5
Montague,	9
Monterey,	3
New Marlborough,	6
North Adams,	25
Orange,	7
Otis,	5

District No. 10, Berkshire and Franklin counties — *Concluded.*

Pittsfield,	29
Sandisfield,	4
Sheffield,	3
Shelburne,	6
Stockbridge,	1
Tyringham,	4
Williamstown,	9

District No. 5, Worcester County: —

Ashburnham,	7
Athol,	22
Auburn,	5
Barre,	6
Boylston,	1
Brookfield,	8
Charlton,	5
Clinton,	15
Douglas,	4
Dudley,	5
Gardner,	28
Grafton,	9
Hardwick,	2
Holden,	8
Leicester,	15
Leominster,	55
Millbury,	19
Northborough,	7
Northbridge,	7
North Brookfield,	4
Oakham,	1
Oxford,	13
Princeton,	4
Royalston,	4
Rutland,	2
Southbridge,	15
Spencer,	13
Sterling,	1
Sturbridge,	3
Sutton,	6
Templeton,	14
Uxbridge,	9
Warren,	8
Webster,	8
Westborough,	12
West Boylston,	3
West Brookfield,	4
Winchendon,	19
Worcester,	42

REPORT OF INSPECTOR JOHN F. TIERNEY.

District No. 6.

SIR: — In presenting my annual report I am pleased to be able to say that the factories and workshops in this district are very much improved since my last report, as regards the running time, sanitary and school laws. The latter law is well obeyed by the managers and overseers, and a great many of them are adopting the rule of hiring older children than formerly, and they say with better results as to work, etc. Also, I find that superintendents and overseers are coming to the conclusion that the State laws are a benefit to them, instead of a hindrance, as they at first supposed they would be. I must also say that, although the laws are very generally obeyed, the inspector must keep a careful lookout over the workshops and factories, as his presence in those places has a beneficial effect, and keeps the managers reminded of the laws.

A careful inspection has been made of all the elevators in my district, and I have tested the safety device on the elevator car of all of them, and must say that most of them were found to be in good condition; where they were not, orders have been given to repair the defect, and these have always been promptly complied with. Fortunately, this district has been free from serious accident this year. I find that where proper safety devices and automatic guards are in use, and the hoisting machinery ropes or cables are taken proper care of, accidents are reduced to a minimum.

In the matter of ventilation of workshops and factories in this district there seems to be a desire to make ventilation as good as possible, and to have such workshops and factories kept as clean as circumstances will allow.

The law requiring all manufacturers to send to the chief of the district police a written notice of any accident to any employee, whenever the accident results in death or causes injury of such a nature as to prevent the person from returning to work within four days after the accident, has been well complied with; and in nearly all cases where accidents do occur, they can be attributed to lack of care on the part of the employee.

The posting of time tables regarding the hours of labor has been to some extent complied with. In some establishments where repairs have been necessary time tables have been removed, or so mutilated as to be of no use whatever. This has necessitated the issuing of new time tables to be posted in the place of those removed or mutilated.

The evening schools in my district have been well attended this last winter, and promise as well for the coming term. The super-

intendents of the different establishments have been notified that they must send any illiterate minors in their employ to these schools.

In closing, I wish to say that I have been courteously received. All information asked for has been cheerfully given, and the factory laws are being well obeyed in this district. Carelessness is what the inspector has to contend with; many things are apparently never thought of until the officer speaks about them. The fact that the inspector is alert, and liable to appear at any time, of course tends to a better observance of the laws.

Summary.

Inspections,	1,143
Orders issued,	363
Orders complied with,	363
Children employed between fourteen and sixteen years of age,	4,618
Males employed,	45,612
Females employed,	31,082
Elevators inspected,	350
Total persons employed,	81,312

Number of inspections in each city or town:—

Fall River,	375	South Easton,	5
New Bedford,	210	Nantucket,	18
Taunton,	100	South Swansea,	5
Mansfield,	40	Dodgeville,	10
North Attleborough,	80	Swansea,	6
Attleborough Falls,	40	Hebronville,	9
Attleborough,	115	Provincetown,	6
South Attleborough,	25	Sandwich,	12
Somerset,	8	Norton,	8
North Dighton,	6	Westport Factory,	14
Adamsville,	8	Chartley,	12
Raynham,	3	Fairhaven,	13
North Easton,	7	Assonet,	8

REPORT OF INSPECTOR JAMES R. HOWES.

District No. 7.

SIR:—I respectfully submit herewith my tabulated report of the inspection work of manufacturing, mechanical and mercantile establishments in District No. 7. I would say that all laws placed in my hands to enforce, regarding the above, have been complied with.

I find that the work of guarding machinery is never finished, as changes in the motive power are constantly being made, changing

the power from steam and water to electricity. I am pleased to say that this does away with shafts, gears, belting and drums, and applies the power directly to each machine, making communication in each room practical.

Regarding child labor (chapter 183, Acts of 1902), I find this law is a great benefit both to the employer and inspector, as it places the responsibility upon the school authorities to certify the ability of the minor to read and write simple sentences in the English language. I find that the law is being readily complied with, and I have not found a single instance where the minor has failed to make a regular attendance at the evening school, except where an excuse has been issued by a physician or superintendent of schools. Out of the 1,350 in this district, minors under sixteen years of age, I found only 16 who did not have the certificate required by section 229, chapter 106 of the Revised Laws; and in these cases the fault was in the misconstruction of the law by the overseers, who considered that it did not apply during vacation.

I would say regarding the sanitary condition of establishments in this district that all the new mills have the improved system of ventilation, and the older mills are adopting them. The employers have been forced in several cases to adopt rules regarding the care of closets by employees. I find that, even with the best ventilating systems, constant care on the part of the employer must be exercised to insure cleanliness.

I feel that the employers are to be commended for the manner in which they are willing to comply with all the laws.

Summary.

Inspections made,	655
Orders issued to manufacturers,	144
Compliances,	144
Males employed,	22,232
Females employed,	14,799
Total number employed between fourteen and sixteen years of age,	1,350
Total number of males and females,	37,031
Elevators inspected,	289
Notices placed on elevators,	34

Number of inspections made in each city and town : —

Agawam,	6	Easthampton,	27
Amherst,	14	East Brimfield,	2
Chicopee,	38	Enfield,	12
Cummington,	18	Goshen,	4
Chesterfield,	8	Granville,	3

Holyoke,	195	Springfield,	181
Huntington,	4	South Hadley,	12
Hampden,	3	Southwick,	2
Hatfield,	4	Westfield,	60
Middlefield,	2	Ware,	18
Monson,	12	West Springfield,	12
Northampton,	86	Williamsburg,	4
Palmer,	28	Westhampton,	4
Pelham,	2	Wales,	6
Russell,	2	Wilbraham,	2

REPORT OF INSPECTOR EDWARD B. PUTNAM.

District No. 8.

SIR:— I transmit with this the summary of the work of factory inspection in District No. 8 for the past year. As you are well aware, a large amount of work which cannot be shown in such a report is accomplished by the factory inspector.

Every year new laws are placed in charge of the factory inspectors to enforce, in addition to the existing laws; and in this district manufacturers and others whom these laws affect are always ready to co-operate with the inspector, and immediate compliance is invariably the rule, without friction.

Some of the new laws have met with more or less criticism, notably chapter 183, Acts of 1902, which requires that, while a public evening school is maintained in any city or town, all minors over fourteen years of age to be employed must have either an age and schooling certificate or a certificate of literacy, or a card showing regular attendance at said evening school or at a day school. It does seem somewhat absurd to require stenographers, book-keepers and other clerks who are under twenty-one years of age to provide themselves with certificate that they "can read at sight and write legibly simple sentences in the English language," but there has not been time enough to fully demonstrate the wisdom of the enactment of this law. It certainly has had the effect of increasing very largely the attendance of illiterate minors at evening schools, and if this was the intent of the law, it is succeeding admirably.

Much has been published of late about the employment of children under the legal age. During the year, out of more than 52,000 persons, employed in 408 establishments, I have found employed less than a half dozen children under fourteen years of age, and the majority of these were employed by their fathers during the vacation of the public schools. All these children were sent out of the factories at once. In less than one-half of one per cent. of the establishments inspected have I found children between

fourteen and sixteen years of age employed without the age and schooling certificates, and less than one-half per cent. of the total number employed are children; which shows that either the law is well enforced, or that the manufacturers have but little use for child labor.

The sanitary conditions in the district are not what I could wish, largely owing to a lack of sewerage facilities. However, advances are being constantly made in this line, and conditions are improving very much every year.

Elevators need constant care and watching. To show how quickly something may go wrong, I inspected an elevator in a factory, looking at the single cable carefully, and found it all right the whole length; only three weeks afterwards I had occasion to visit the same factory, and riding up on the elevator I saw that the strands were breaking, and had a new cable supplied at once.

Dangerous machinery is well guarded, and but few accidents from machinery cause are reported from this district. Carelessness and negligence on the part of the employee cannot be guarded against by the inspector.

Summary.

TOWN OR CITY.	Inspections.	NUMBER EMPLOYED.		Children under 16 Years.	Elevators inspected.	Orders issued.
		Males.	Females.			
Abington,	13	1,315	440	5	8	3
Avon,	2	107	33	2	-	-
Braintree,	8	716	269	4	3	2
Bridgewater,	9	867	136	8	2	8
East Bridgewater,	1	267	3	-	3	-
Brockton,	157	12,571	4,873	175	81	80
Blackstone,	3	1,020	280	62	1	-
Canton,	5	426	285	5	1	2
Dedham,	5	520	232	13	1	5
Fitchburg,	37	3,625	1,862	291	3	36
Foxborough,	2	85	234	-	2	-
Hanover,	5	213	44	3	-	2
Holbrook,	1	55	20	-	1	-
Hull,	6	214	139	2	-	5
Hyde Park,	22	1,826	543	47	11	13
Kingston,	4	45	11	2	-	2
Medfield,	5	257	300	-	1	1
Middleborough,	16	932	276	7	9	7
Norwood,	10	1,599	316	5	10	3
Plymouth,	9	1,785	553	75	8	2
Quincy,	16	3,644	664	26	7	4
Randolph,	5	287	86	18	3	4
Rockland,	15	1,071	448	21	9	3
Stoughton,	10	756	405	29	5	2
Upton,	2	310	600	1	1	-
Walpole,	9	635	89	8	3	4
Wareham,	2	295	-	-	-	-
Weymouth,	11	1,081	603	7	9	6
Whitman,	11	1,729	651	21	11	5
Wrentham,	7	317	162	-	2	-
Totals,	408	38,570	14,559	837	195	199

REPORT OF INSPECTOR JOHN J. SHEEHAN.

District No. 9.

SIR : — I respectfully submit my annual tabulated report of the work performed in District No. 9, together with a few remarks about the inspection laws.

There seemed to be a feeling among the labor representatives that during the past year minors under sixteen years of age were being employed without certificates. In the mills the law is being lived up to religiously, but in the small boot and shoe and shoe stock factories I have found a few minors without certificates helping their fathers or working for employees; and I must say, in justice to the manufacturers, that whatever violations of the law there are, three-fourths are made by the employees, for they employ and pay the minors, and in most cases the manufacturers know nothing about them.

There have been no violations of the fifty-eight hour law in the textile factories and in the boot and shoe factories; I have found that the help could not be induced to work fifty-four hours per week. I have found the same conditions to exist in the mercantile establishments; but in the restaurants I received some complaints. I investigated the complaints, and found that there were some of the restaurant keepers who, I had reason to believe, were violating the law, but I could not get reliable proof; so I visited all the restaurants in Salem, Haverhill, Newburyport and Lynn, and gave them to understand that if they violated the law, and I could procure evidence, they would be summoned into court.

The inspection of elevators and the guarding of elevator wells have received my closest attention during the past year. The hoisting cables have been carefully examined, and the safety devices on the cars were tested as often as it was possible. Great care is taken of the elevators in some factories, and careful men operate them; but in most of the factories the elevator is operated by any one that wants to use it, and consequently it is not to be wondered at that it is constantly out of order. If the owners of buildings were obliged to provide competent persons to operate their elevators, the inspector would have no difficulty in keeping posted about their condition; as it is now, he makes his inspection, and the elevator is placed in proper working order; in a short time he is notified that the elevator is dangerous, and when he visits the building he finds that the elevator is operated in a careless way. Elevators, like all kinds of machinery, unless they are oiled and cleaned every week by some competent person, will not remain in proper working order.

The elevator wells are mostly protected by self-closing hatches and automatic gates or bars, and are looked after constantly by the occupants of the building, who know that if an employee falls into the elevator well on account of it not being protected they are likely to hear from it. If the owners of the buildings would take the same care of the elevators as the occupants do to keep the wells protected, there would be very few accidents of a serious or fatal nature.

The law in relation to the guarding of dangerous machinery is another thing that claims the attention of the inspector. It must be admitted that it is an impossibility to make machinery absolutely safe, yet it can be made reasonably so with proper safeguards and proper diligence of the inspector. By his timely suggestions he may suppress dangerous practices in the use of machinery; but it is only just to state that many accidents result from the carelessness of the operatives themselves. In quite a number of our factories we have more or less old machinery, but competition in different lines of manufacturing necessarily calls for new and improved machinery. In replacing old with new machinery, proper care should be taken to see that necessary safeguards are provided.

I am pleased to report very many greatly improved conditions in manufacturing establishments; better ventilation, power fans and other appliances introduced; plenty of properly ventilated closets for both sexes have been provided; dressing and wash rooms have become a necessity; proprietors have taken much interest in the welfare of those whom they employ; care has been taken to keep the stairways free from obstructions and the doors leading to them unlocked, so that in case of fire there could be no trouble in getting out.

I have visited the mercantile establishments from time to time, to see if the seats provided for females were kept in places available for use by the employees; and I found that the law was complied with, and also that the proprietors thought it was a good law, and did not interfere with the girls using the seats when not engaged in waiting upon a customer.

Summary.

Mercantile establishments visited,	250
Factories and workshops inspected,	950
Elevators inspected,	425
Orders issued,	217
Compliances,	213
Total number of persons employed,	69,182
Total number of males employed,	47,804

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Total number of females employed,	21,378
Males between fourteen and sixteen years of age,	478
Females between fourteen and sixteen years of age,	338
Buildings with poor egress reported to Inspector Cheney,	7

CITIES AND TOWNS.	Inspections.	Males employed.	Females employed.	CHILDREN BETWEEN 14 AND 16 YEARS.	
				Males.	Females.
Amesbury,	40	1,860	525	19	37
Beverly,	40	1,775	715	11	1
Bradford,	11	600	125	2	-
Danvers,	21	785	225	2	-
Georgetown,	5	210	10	-	-
Groveland,	3	285	182	12	6
Gloucester,	42	1,150	845	16	25
Haverhill,	210	8,760	4,300	48	32
Ipswich,	4	419	470	14	15
Lynn,	323	17,280	8,125	180	101
Marblehead,	20	625	350	-	-
Manchester,	5	65	10	-	-
Merrimac,	11	376	5	-	-
Middleton,	2	54	20	-	-
Newburyport,	38	2,987	1,825	41	27
Newbury,	2	100	35	-	-
West Newbury,	2	75	15	-	-
Peabody,	52	3,050	500	20	7
Rockport,	4	2,085	-	-	-
Rowley,	8	225	50	3	2
Salem,	94	5,178	3,176	110	85
Saugus,	5	75	30	-	-
Swampscott,	3	40	20	-	-
Topsfield,	5	60	25	-	-
Total,	950	47,804	21,378	478	338

REPORT OF INSPECTOR L. F. F. ABBOTT.

District No. 10.

SIR: — I enclose summary of inspection work done in Districts Nos. 5 and 10 for the current year. Hotels and mercantile establishments are not included in the number of inspections.

I find certificates for all children under sixteen years of age, and the lists of same, well kept. Sanitary conditions are generally very good; a few I should call only fair, but these are usually where there is no sewerage, and the mill managers do the best they can under the circumstances. As far as my observation goes, they are continually improving.

In relation to child labor, I find the law fully complied with. There is no disposition to evade, and when in doubt the managers of factories communicate with me to ascertain just what is proper to do in the matter. As to sanitary provisions, section 47, chapter 106, Revised Laws, appears to cover all that comes under my jurisdiction. It calls for a sufficient number of water-closets, earth closets or privies; that where males and females are employed together the closets shall be separate for each sex, and so designated, and shall be clean and free from effluvia. There are all kinds of closets in use in this district. Some are of the latest and best of modern construction, but all I think are within the requirements. There are some of a kind not mentioned in the law; they are built over the stream, and drop directly into it. From a sanitary point of view they are perhaps as good as many others, for there is no possible danger from sewer gas or any bad odors penetrating the buildings. There is and has been a constant improvement in the sanitary conditions for a long time. Most all manufacturers take pride in improving. I have never visited a factory where new closets have been provided but that before I got to them the owner or superintendent told me about them. From experience as well as observation I know that sanitary conditions are far superior to what they were a few years ago. I am fully convinced that they are much better to-day in the factories than they are in the homes of a majority of the employees. It is well that the best conditions available in the sanitary line are insisted upon in factories, as that will lead in time to better conditions everywhere.

All other laws are as well complied with, and I have found no necessity for the issuance of peremptory orders, as where anything needed to be done employers were willing to attend to the matter at once. There is no disposition to antagonize the law or the officer, if he presents the law and facts in a proper manner. That has been my experience.

Summary.

CITIES AND TOWNS.	Inspections.	Males employed.	Females employed.	Children under 16 Years of Age.
<i>District No. 5.</i>				
Auburn,	4	106	90	13
Worcester,	29	1,534	565	19
Totals,	33	1,640	655	32
<i>District No. 10.</i>				
Adams,	9	447	254	59
Buckland,	4	247	34	15
Clarksburg,	3	200	95	22
Cheshire,	5	131	-	-
Colrain,	6	276	70	23
Conway,	5	110	39	10
Charlemont,	4	37	-	-
Dalton,	10	435	557	16
Deerfield,	3	49	102	-
Great Barrington,	8	709	431	23
Greenfield,	22	798	188	30
Hinsdale,	3	194	110	11
Lee,	11	299	241	2
Lenox,	3	57	26	-
Montague,	12	1,013	457	78
North Adams,	27	1,234	908	154
Orange,	2	199	12	7
Pittsfield,	33	1,644	1,417	165
Shelburne,	5	47	48	3
Williamstown,	7	209	87	28
Totals,	215	9,975	5,711	678

Whole number of inspections,	215
Number of males employed,	9,975
Number of females employed,	5,711
Number of children under sixteen years of age,	678
Total employed,	16,364

REPORT OF INSPECTOR F. C. WASLEY.

District No. 11.

SIR:—I respectfully submit to you my tabulated report and summary of work in District No. 11 for the year ending Oct. 15, 1903.

In the different manufactories for the past year, on account of the high price of cotton and the serious strike which occurred at Lowell, business has been rather fluctuating; but I am pleased to report that times are better, and the factories are now all in full operation in the district.

Many reports have been made that children under the required legal age of fourteen years are working in the mills; but, having used more than usual care on this particular point in making my

inspections, I have failed to discover in any instance that one of these reports can be substantiated. I find upon investigation the truant officers in Lowell and Lawrence are using much care in issuing certificates to children of foreign birth, and passports, also certificates of birth, are required before giving these children their certificates.

I would like to call your attention to one matter, and that is, I have had complaints of Syrians swearing falsely to procure their children's school certificates; upon investigation at Lawrence I find some truth in these complaints. I consider Syrians the most unreliable people coming to this country; they think it is no crime to take a false oath, or use a different name in every place where they may be employed. Such people make conditions in our manufacturing cities very bad, especially for the manufacturers giving employment.

I am of the opinion that the fifty-eight hour law is now generally complied with in this district in the mercantile establishments.

All machinery of dangerous construction has been carefully inspected. Where I have found imperfections, orders have been issued at once to agents and managers, and they have readily complied.

Although I have many elevators in my district, I find on inspection they are kept in first-class condition. I am continually warning parties interested what a risk they take in allowing an elevator to remain out of order for one hour after the defects have been discovered.

Theatres and places of assembly are complying with all requirements of the laws regulating their management, but I shall continue to look after this business closely.

I have received no complaints against the electric roads during the past year; but this matter I shall be very particular about this winter, for one can never tell when violations may occur.

All agents and managers have been very prompt in complying with orders issued.

Summary.

Inspections made,	506
Orders sent,	312
Compliances,	312
Males employed,	35,504
Females employed,	25,439
Children between fourteen and sixteen years of age,	4,242
Total males and females employed,	60,943
Elevators inspected,	289

CITIES AND TOWNS.	Inspections made.	Males employed.	Females employed	CHILDREN BETWEEN 14 AND 16 YEARS.		Elevators.
				Males.	Females.	
Lowell,	329	17,793	14,126	1,233	877	183
Lawrence,	102	13,121	8,488	731	718	77
Andover,	10	708	704	49	56	8
North Andover,	7	979	262	34	15	5
Chelmsford,	15	608	606	214	63	8
Billerica,	10	437	150	22	10	3
Methuen,	12	503	493	42	26	-
Dracut,	5	756	233	30	32	4
Westford,	9	497	372	41	49	1
Tyngsborough,	6	90	5	-	-	-
Tewksbury,	1	12	-	-	-	-
Totals,	506	35,504	25,439	2,396	1,846	289

REPORT OF INSPECTRESS MARY E. HALLEY.

Special Duty.

SIR:—The subject of child labor, which is now exciting such earnest discussion among people all over the State, recalls very vividly your instructions in regard to enforcing that most important of all factory laws, the child labor law,—to thoroughly acquaint myself with my official duties, and to give unceasing attention to the law pertaining to the employment of children. In approaching this subject it may be an opportune time to give some particulars concerning this law and its effectiveness in this district, and show what means are devised by the different superintendents of schools to prevent all children from receiving a certificate until they are the age required by law,—fourteen years. The law specifies that no child under fourteen years of age can be employed at any time. Over that age the duty of providing school certificates for children devolves upon the superintendent of schools or his authorized agent. It has been claimed that children under fourteen years of age are employed in factories in some parts of the State by securing certificates when not of the age required. It is not until one has given close attention to facts that we realize the truth or untruth, whether complaints are visionary or well founded. I will endeavor to present some of the painstaking efforts of the different superintendents of schools to prevent any children from receiving certificates until they are fourteen years of age. No chil-

dren in this district can obtain certificates unless they first present an official record of birth. If the child was born in this State, that is an easy matter to do. If born in another State, or of foreign birth, a letter is sent to the place of birth, requesting an official birth record. The following is a copy of a letter sent to Cape Verde Islands : —

*To the priest of Nossa Senhora de Mont,
Cape de Verde Islands.*

MY DEAR SIR : — We are very desirous of finding out the date of birth of ———, son of ——— and ———. Will you kindly fill in blank below, and return at your earliest convenience. Thanking you in advance,

Yours truly,

—————,
Superintendent of Schools.

————— was born on the ——— day of the month of ———, in the year ———.

Signed (officially), ———.

Copies of this letter are written in Portuguese, Russian, French, Polish and other foreign languages, and foreign postage is enclosed for reply. The child applying for a certificate must wait until the official notice arrives, which in some instances extends over a period of three and four weeks. These are not isolated cases, but all children applying for certificates must bring official notice of birth. Here is also another proof of how careful superintendents of schools are in this district in issuing certificates : —

Rev. ———.

DEAR SIR : — It is rumored here that certificates of birth of children who are seeking work in this city are being forged by unscrupulous persons here to take the place of those issued by the clergy. This is very difficult to prove. I seek your assistance in proving or disproving this rumor. I therefore send you certificates that have been presented at this office, claimed to have been issued by you. I shall greatly appreciate your courtesy if you will return them to me endorsed by you if they are genuine, or disproved if they are not. I will place postage on return envelope if I can secure it here, which is difficult.

I am sir, yours truly,

—————,
Superintendent of Schools.

Thus it will be seen that the system of issuing certificates in this district is excellent. I use the word "excellent" advisedly, knowing the unlimited amount of work done in connection with the issuing of certificates to children of legal age. This is a rule, of

course, but sufficiently serves the purpose of carrying out the intent of that law. The certificate being issued, it now becomes the duty of the factory inspector to see that no child between the ages of fourteen and sixteen years is employed who cannot produce a certificate. Having been a factory inspector for a number of years in a district employing the largest number of children, I feel safe in saying that no law on the statute books is more rigidly enforced or gives more satisfaction than the child labor law. That it is enforced in its spirit and intent has become a fixed fact which no one questions, but all acknowledge, and it is unquestionably a humane law. Many children of foreign birth are very undersized, and this may give rise in some instances to complaints that they are not fourteen years of age, and what is sometimes thought to be a violation of the law is discovered upon investigation to be unfounded.

Manufacturers claim, and conditions are such, that children under sixteen years of age are not the actual necessity in their factories to-day that they were formerly. As an instance of this, I will cite some changes that have taken place, whereby children have been displaced by grown women. In spooling rooms, where formerly children were engaged as spoolers, at wages ranging at from \$3 to \$5 per week, their places have been filled by women, at an average wage of \$7 per week. Also in spinning rooms a change has been made in size of bobbin, causing longer periods between doffs, which diminishes somewhat the number of young children in those rooms. In weave rooms not so many children are employed, as older persons are required to operate more looms, because the filling bobbins are made longer, and hence do not run out so quickly as formerly. Still another reason why not so many children are employed is because of the sharp competition and the necessity for better work than children can do, thus necessitating the employment of more skilled operatives to perform the work, brought about by the change from coarse to fine materials.

The Legislature of 1902 made a change in the law relative to evening schools. It became operative last year, and it requires every person under twenty-one years of age to produce a card or certificate from the superintendent of schools, certifying that such person can read and write in English. There are many persons employed in the different workshops and factories who have attended the grammar schools and even high schools, yet they are required to produce this evidence as to their ability to read and write. This may be a very salutary amendment or revision of the old law, but I fail to see its advantage. Before this law was amended in this manner the factory inspector could easily determine whether there were any illiterate persons employed, without

requiring those about whom there was no question to go to the trouble of procuring certificates. The time of the inspector is oftentimes taken up unnecessarily, in my opinion, in calling for the production of certificates by persons whom they are absolutely certain can read and write.

I can add little to my report in relation to the specifications act that I have not already said. During the past year I have examined several hundred styles of goods, and have rarely found an occasion to make any changes. The five per cent. limit fixed by law for variations is sufficient to allow for any lengthening or contraction during the process of weaving. In referring to the different reports of cloth I made from time to time, it is very evident that a change from five per cent. to three per cent could be made without any injury to the manufacturers and with much satisfaction to the operatives.

The mercantile law, which at first caused expressions of dissatisfaction, is now looked upon as neither difficult to live up to nor unpleasant in its requirements. In fact, all the laws which are made to protect the industrial classes are being enforced as effectively as possible without detriment to the purpose for which they were enacted. The inspectors have some consciousness of what is expected of them, and pursue their work quietly and effectively, and with as little resort to force as is consistent with the enforcement of the law.

Summary.

Inspections in Fall River,	128
Inspections in New Bedford,	94
Inspections in Attleborough,	30
Inspections in Taunton,	40
Inspections in Westport,	2
Inspections in Fairhaven,	2
Inspections in Hebronville,	1
Inspections in Westville,	1
Inspections in Attleborough Falls,	6
Inspections in Mansfield,	5
Inspections in Dodgeville,	1
Total number of inspections,	310
Orders issued,	102
Compliances,	102

REPORT OF INSPECTRESS MARY A. NASON.

Special Duty.

SIR:— I respectfully submit the following report of my work, which is confined to mercantile, dressmaking and millinery establishments, for the past year.

There is nothing particularly new or strange to offer, as there is much sameness in an inspector's work, and one year differs very little from its predecessor; there is, however, a marked tendency towards better conditions and closer observance of the laws, which is very gratifying.

Although there has been a slight increase in the number of children employed between fourteen and sixteen years of age, a pleasing feature has been the general observance of the law which requires that school certificates shall be kept on file for all such children. In fact, I have had occasion to issue but seven orders for certificates during the entire year. In a very few instances I found children employed under fourteen years of age, but they were discharged at once, upon notification of the fact to the employer.

Summary.

Inspections,	899
Orders issued,	58
Compliances,	56
Children employed between fourteen and sixteen years of age, .	1,018
Males (adults) employed,	6,712
Females (adults) employed,	16,034

Number of inspections in each city or town:—

Boston,	508	Roxbury,	18
Fitchburg,	29	Springfield,	38
Haverhill,	35	Salem,	34
Holyoke,	19	Worcester,	63
Lawrence,	70	Woburn,	6
Lynn,	51	Waltham,	21
Lowell,	7		

BOILER INSPECTION DEPARTMENT.

REPORT OF INSPECTOR EVERETT B. DYER.

*District No. 1.**Summary of Examinations.*

Applications for licenses received,	401
Licenses granted,	270
First-class engineers,	4
Second-class engineers,	12
Third-class engineers,	20
Special licenses,	102
Fireman's license,	99
Low-pressure fireman's,	7
Hoisting and portable engineers,	8
Steam fire engineers,	18
On file,	17
Licenses refused,	114
Renewals,	125

Summary of Inspections.

Number of boilers inspected,	253
Total number of defects found,	602
Dangerous defects found,	285
Boilers ordered repaired,	149
Certificates granted,	238
Boilers condemned,	3

REPORT OF INSPECTOR DAVID H. DYER.

District No. 2.

SIR:—I have the honor herewith to submit to you my tabulated summaries of examinations of engineers and firemen and inspections of boilers for the year ending Sept. 30, 1903.

Summary of Examinations.

CLASS.	Applied for.	Granted.	Renewals issued.
First-class engineers,	90	10	59
Second-class engineers,	131	63	82
Third-class engineers,	106	92	114
Special engineers,	121	193	58
Portable and hoisting engineers,	22	27	18
First-class firemen,	322	215	114
Low-pressure firemen,	-	20	21
Special firemen,	-	69	19
Licenses refused,	-	113	-
Totals,	792	792	485

Licenses revoked for untrustworthiness, 5

Summary of Inspections.

Boilers inspected,	223
Defects found,	1,909
Dangerous defects found,	365
Boilers ordered repaired,	119
Boilers condemned,	3
Boilers voluntarily destroyed by owners,	16

REPORT OF INSPECTOR JAMES B. DE SHAZO.

District No. 3.

SIR: — I herewith submit for your approval a tabulated statement of the work performed by me during the past year.

Summary of Examinations.

Applicants examined,	566
Applicants rejected,	152
Licenses granted: —	
First-class engineers,	4
Second-class engineers,	15
Third-class engineers,	29
First-class firemen,	74
Special firemen,	146
Special engineers,	134
Hoisting and portable engineers,	12
Renewals,	378
Licenses revoked,	2
Complaints investigated,	34

Summary of Inspections.

Boilers inspected,	280
Defects found,	653
Dangerous defects found,	183
Boilers ordered repaired,	172
Certificates issued,	272
Boilers discarded as unfit for use,	5

REPORT OF INSPECTOR F. H. SANBORN.

District No. 4.

SIR: — I respectfully submit to you my annual report for the year ending Oct. 1, 1903.

Summary of Examinations.

Application for licenses received,	473
Licenses granted : —	
First-class engineers,	6
Second-class engineers,	13
Third-class engineers,	23
Firemen's licenses,	157
Special licenses,	134
Hoisting and portable engineers,	19
Licenses refused,	121
Licenses renewed,	389
Licenses revoked,	4

Summary of Inspections.

Boilers inspected,	243
Defects found,	351
Dangerous defects found,	153
Boilers ordered repaired,	59
Boilers condemned,	4

REPORT OF INSPECTOR CHARLES FERGUSON.

District No. 5.

SIR : — I respectfully render an account of my examination of engineers and firemen, together with the inspection of boilers, during the past year.

Summary of Examinations.

Total number of applicants examined,	534
Licenses granted : —	
First class,	2
Second class,	17
Third class,	30
Special engineer, to have charge,	52
Special engineer, to operate,	43
Hoisting and portable engineers,	23
Firemen,	146
Licenses rejected,	221
Licenses renewed,	696

Summary of Inspections.

Boilers inspected,	233
Defects found,	488
Dangerous defects found,	299
Boilers repaired,	132
Boilers condemned,	1

REPORT OF INSPECTOR JOHN H. KAZAR.

District No. 6.

SIR: — I respectfully submit the following report of examinations and inspections made by me during the past year.

Summary of Examinations.

First-class engineers,	7
Second-class engineers,	22
Third-class engineers,	22
Hoisting and portable engineers,	10
Special engineers and firemen,	170
First-class firemen,	85
Licenses refused,	210
Licenses renewed,	555
Total number of examinations,	526

Summary of Inspections.

Boilers inspected,	240
Boilers repaired,	119
Boilers put out of service,	3
Defects found,	408
Dangerous defects found,	124

REPORT OF INSPECTOR LOUIS AMELL.

*District No. 7.**Summary of Examinations.*

Applicants for licenses examined,	384
Licenses granted: —	
First-class engineers,	4
Second-class engineers,	14
Third-class engineers,	21
Special engineers,	132
Portable and hoisting engineers,	26
Low-pressure firemen,	6
First-class firemen,	33
Firemen to have charge,	4
Special firemen,	97
Licenses refused,	47
Cases prosecuted,	2
Fines paid (\$32.82, \$30),	2
Applications received,	384
Complaints investigated,	43
Licenses revoked,	3
Licenses renewed,	289

Summary of Inspections.

Boilers inspected,	256
Defects found,	393
Dangerous defects found,	123
Boilers ordered repaired,	76
Boilers condemned,	5

REPORT OF INSPECTOR JOHN MCGRATH.

District No. 8.

SIR:—In compliance with your instructions, I herewith transmit my annual report, giving number of engineers and firemen examined and boilers inspected.

Summary of Examinations.

Total number examined,	549
Licenses granted:—	
First-class engineers,	5
Second-class engineers,	23
Third-class engineers,	44
Hoisting and portable engineers,	6
Firemen to operate,	76
Special engineers,	67
Special firemen,	102
Low-pressure firemen,	7
Steam-fire engineers,	1
Rejected,	218
Renewals,	515

Summary of Inspections.

Boilers inspected,	238
Defects found,	340
Dangerous defects found,	104
Boilers ordered repaired,	83
Boilers condemned,	2

REPORT OF INSPECTOR STURGIS C. BAXTER.

District No. 9.

SIR:—I have the honor to submit my report of work done in District No. 9.

Summary of Examinations.

Applications received,	1,045
First-class engineers,	22
Second-class engineers,	59
Third-class engineers,	81
Special licenses,	229

Hoisting and portable engineers,	31
First-class firemen,	209
Low-pressure firemen,	6
Licenses refused,	408
Renewal of licenses,	675

Summary of Inspections.

Boilers inspected,	250
Defects found,	130
Dangerous defects found,	96
Boilers ordered repaired,	75
Boilers condemned,	2

REPORT OF INSPECTOR JOSEPH H. McNEILL.

District No. 10.

SIR:— I have the honor to submit my report of work done in District No. 10.

Summary of Examinations.

Applications received,	636
Applications on file,	16
Licenses granted:—	
First-class engineers,	12
Second-class engineers,	26
Third-class engineers,	41
Hoisting and portable engineers,	5
Steam-fire engineers,	2
Firemen,	107
Special licenses,	223
Licenses refused,	204
Licenses revoked,	2
Licenses renewed,	566
Cases prosecuted,	2

Summary of Inspections.

Boilers inspected,	232
Defects found,	459
Dangerous defects found,	110
Boilers ordered repaired,	52
Boilers put out of service,	2

REPORT OF INSPECTORS OF READY-MADE CLOTHING.

REPORT OF INSPECTOR JOHN E. GRIFFIN.

Special Duty.

SIR:— I have the honor to submit my report for the year ending Oct. 1, 1903. The work of this special branch of the inspection

department, viz., relating to the sale and manufacture of clothing made in unhealthy places, is so well known to you that it requires but a brief report from me.

The effectiveness of our work consists not in the number of licenses we may issue, but in the manner in which we make our inspections, and the methods we employ to raise the standard of cleanliness in the homes of those to whom we grant them. Very often we find applicants for a license occupying clean rooms, but located in filthy buildings, who believe they are unjustly treated in being refused a license, unmindful of the unhealthful condition of the building in which they reside, and relying solely upon the cleanliness of their own apartments. In such cases the temporary license we are allowed to issue for thirty days acts as an important agent in forcing a strict observance of the regulations governing the permanent license they may obtain later; also it gives them an opportunity to acquire sufficient money to enable them to move into a suitable building. Again, many apply for a license in clean buildings, believing that their poverty is a sufficient cause to secure a license, irrespective of the over-crowded or dirty condition of their apartments. While it is absolutely necessary to refuse a license to this class, the landlord very often feels offended when he is obliged to order the removal of such dirty family, that other families in the same building holding a license may not have them revoked. In both these instances extra visits upon the part of the inspector are required, to see that the law is rigidly enforced. When a license holder removes without previous notice to this department, the license is revoked permanently, unless we have a proper assurance that their failure to so report was caused by their ignorance of the law.

The English-speaking classes of our applicants for a license are with very few exceptions found to keep their apartments in a cleanly condition; it is only among our foreign element that we discover conditions prejudicial to health. I am sorry to note the increasing number of dirty Italians who are being continually sent to the office for a license by our poorer class of contractors, who are also employing them in the respective workshops, to the detriment of our cleaner class of Portuguese employed in the same business. This is caused by reduction in the prices offered for their work, as only this dirty class can accept such small prices, and exist. This leads me to state, as in former years, that the clothing merchants themselves, if they so desired, could prevent this class of tenement house work, which there is no plausible excuse for allowing, by simply compelling the contractors to have the entire garment made

in the workshop. It is obvious that only the pressure of public opinion, brought to bear upon those organizations employed in the clothing industry, can accomplish this end.

Nothing of unusual character has appeared during the year to require especial attention. The regular workshops which I inspected, while having their time tables posted and observing the law relative to the employment of minors and women, have required the issuing of many orders, on account of the dirty condition of their sanitariums. Court cases were as follows:—

Max Mear, of 10 Mechanic Street, Boston, was the only contractor who was discovered sending work into unlicensed tenement houses. He was promptly brought into court and fined \$100. His counsel appealed the case, and in the superior court, upon a plea of guilty, his fine was reduced to \$50. Louis Wilbur, of the same address, was fined \$10 for employing a boy under the age limit.

Summary.

Licenses outstanding Oct 1, 1902,	410
Licenses granted during the year,	122
Licenses revoked during the year,	148
Licenses outstanding Oct. 1, 1903,	384
Licenses refused during the year,	138
Visits to licensed and unlicensed tenements,	560
Total inspections and visits during the year,	1,076
Workshops inspected during the year,	141
Workshops visited during the year,	130
Orders issued during the year,	155
Stores and small shops, where clothing is sold, made, repaired and cleaned,	71

REPORT OF INSPECTOR JOHN H. PLUNKETT.

Special Duty.

SIR:—The result of the work performed during the year in the enforcement of sections 56 to 61, chapter 106 of the Revised Laws, relative to the manufacture of wearing apparel in the district assigned me, is herewith submitted.

Licenses outstanding Oct. 1, 1902,	1,166
Licenses granted during the year,	429
Licenses revoked during the year,	394
Licenses outstanding Oct. 1, 1903,	1,201

A review of the figures submitted shows an increase in the number of licenses outstanding over last year, which may be accounted for by the fact that hundreds of women living in the suburban cities and towns are employed in the finishing of wearing

apparel for women, mostly knit underwear. This labor is performed by hand, and does not attract people seeking a living by their labor, but rather a class who devote their leisure time to the work. While the homes of these people are generally all that can be desired in regard to cleanliness and sanitary conditions, the quality of the material of which these garments are made is such as would furnish a prolific carrier for the germs of disease. The license feature of the law when applied in these places, requiring as it does a notice in the event of contagious disease, under penalty of forfeiture, serves to keep these people on the alert, and makes them more careful of the welfare of others. There is a class of manufacturers who by advertising in the papers are continually sending in applicants for licenses to make women's and children's garments, the pay for which is so small that not fifty per cent. of those who receive a temporary license continue in the business. This makes a large amount of work for the inspector, which might in most cases be avoided by good business methods on the part of these concerns. Most of these women after a trial of the work become so discouraged that they neglect to return the license card given them, thereby compelling us to either write or call for the card; and in this connection I have made nearly three hundred visits.

Close attention has been given to localities where overcrowded and unsanitary conditions are liable to exist, and where licenses were sought or granted; and no violation of the license requirement of the law has been discovered during the year.

A review of the following summary discloses only a part of the work performed, as the clerical labor incident to the enforcement of the law requires that at least one-half of the time during the year be devoted thereto.

Summary.

Inspections and licenses granted,	432
Inspections and licenses refused,	55
Inspections and licenses revoked,	15
Inspections and licenses renewed,	106
Inspections and licenses transferred,	82
Visits and temporary licenses returned,	283
Visits and licenses revoked,	294
Visits for investigation,	386
Total inspections and visits,	1,643
Workshops inspected during the year,	34
Orders issued in workshops,	41

DETECTIVE DEPARTMENT.

DETECTIVE DEPARTMENT.

BOSTON, MASS., NOV. 12, 1903.

RUFUS R. WADE, Esq., *Chief, Massachusetts District Police.*

DEAR SIR: — I hereby submit the annual report for the year ending Nov. 1, 1903, of the detective and fire marshal's departments of the district police. The department is now composed of one deputy and twenty men, thirteen of whom are assigned to general criminal work. By an act of the Legislature, May 18, 1903, the men who then composed the fire marshal's department of the district police had conferred upon them all of the powers and duties of a district police officer. I have found this law to be of great advantage, as by its operation it gives the seven fire inspectors the powers of service of warrants and subpœnas, and also confers the power upon the chief and deputy to detail them for special criminal work and also to detail any of the thirteen men for fire inspection. I am pleased to report that since I have been in charge of the criminal and fire marshal's departments I have found a good state of discipline, and the duties assigned to all of the men have been performed in a manner that is a credit to them as well as the Commonwealth.

I feel it my duty to call attention to the great discrepancy in the compensation of the men. All of the men composing the several departments of the district police receive a salary of \$1,500 per annum, with the exception of the fire inspectors, who are full-fledged district police officers, subject to all the requirements and rules, and are obliged to buy uniforms and answer all calls for duty, at a salary of \$1,000 per annum. I know of no reason why such a discrepancy should exist, and I respectfully suggest that measures be taken to equalize said salaries.

I desire to extend through you my heartfelt thanks to all the members of the department for their strict adherence to duty, and for the courteous treatment I have received at their hands.

I also desire to extend my thanks to the Attorney-General's department for the valuable advice received.

Respectfully submitted,

JOSEPH E. SHAW,
Deputy Chief, Massachusetts District Police.

SPECIAL DUTY.

Officers of this department have been called upon for special duty at the following cities and towns: Barre, Hyannis, South Framingham, Concord, Cottage City, South Hadley, Lancaster, Greenfield, Harwich, Salem, Barnstable, Marshfield, Blandford, Tewksbury and Clinton.

Arrests.

Arrests have been made to the number of	214
Number of cases investigated,	653
Total amount of stolen property recovered,	\$2,597
Restitution in two cases made of	680
Making a total of property recovered of	3,277

HAMPSHIRE AND FRANKLIN COUNTIES. — OFFICER JAMES MCKAY.

Total number of cases investigated,	62
Total number of arrests,	20
Total valuation of property recovered,	\$341

Among the most important cases investigated were the following: —

George Logan; crime, larceny in a building. Found guilty; sentenced to the Massachusetts Reformatory.

George Waltz; crime, larceny in a building. Found guilty; sentenced to the Massachusetts Reformatory.

Thomas Burke, *alias* Richard Mack, *alias* Massachusetts Dick; crime, safe blowing. Found guilty; sentenced to not less than four nor more than five years in the State Prison.

William F. Sanders; crime, assault on an officer. Found guilty; sentenced to pay a fine of \$200.

James Blake, *alias* John Lombard; crime, assault with intent to murder. Held for the grand jury.

Joseph Cramer, *alias* Joseph Crawford; crime, having burglars' tools with intent to use the same. Held for the grand jury.

John White; crime, having burglars' tools with intent to use the same. Held for the grand jury.

John K. Breen, *alias* Thomas Reynolds; crime, having burglars' tools with intent to use the same. Held for the grand jury.

John Stroble; crime, assault with intent to murder. Held for the grand jury.

Alice Powell; crime, burning a dwelling house to defraud an insurance company. Held for the grand jury.

William Belrose; crime, larceny in a building. Held for the grand jury.

Also assisted in the Clara Morton murder case.

NANTUCKET AND DUKES COUNTIES. — OFFICER THOMAS A. DEXTER.

Total number of cases investigated,	60
Total number of arrests,	9
Total value of property recovered,	\$68
Total number of days assigned for special duty, principally on State police steamer "Lexington,"	168

Among the most important cases investigated are the following: —

John E. Baker; crime, obtaining money under false pretences. Wanted by the Vermont authorities.

Mildred Powell; crime, larceny of team. Convicted; placed on probation.

William R. Hammett; crime, obtaining money by fraud; case pending.

Charles Fenton, George Fontaine, Joseph Perry and Manuel Terry; crime, violation of shell-fish law. Convicted and fined.

Assisted State Officer Hodges in Angles Snell murder case.

MIDDLESEX COUNTY. — OFFICER JOPHANUS H. WHITNEY.

Total number of cases investigated,	49
Total number of arrests,	16

Among the most important cases investigated are the following: —

Edward Mahoney; crime, assault with intent to kill his brother. Found guilty; sentenced to the Cambridge Jail for a term of five years.

Rose Corcoran; crime, perjury. After being detained some six months in the Cambridge Jail, was found guilty and sentenced to the House of Correction for a term of six months.

Ernest Whelpley; crime, larceny. Found guilty; sentenced to the House of Correction at Cambridge for a term of twenty-one months.

Dr. Walton B. Warde; crime, violation of the statute law requiring registration of physicians. Found guilty; fined \$100.

Everett Wayne; crime, murder of Arthur McLaughlin. Defendant adjudged insane, and committed to an asylum.

Tony Rose, *alias* John Enway, *alias* Albert Martin; crime, breaking and entering and larceny. Found guilty; sentenced to the Massachusetts State Prison for a term not less than four nor more than five years.

Louis Dow, *alias* Frank Murphy; crime, larceny. Held for the December term of the grand jury, 1903.

I was detailed from Oct. 29, 1902, to Dec. 4, 1902, investigating the murder of Mary J. Weinberg; then assigned to work on the case of the Commonwealth *v.* George O. Perry until March 10, 1903; in June was detailed to assist Chief Moffatt of the Lowell department in the case of the Commonwealth *v.* James E. Lamothe; June 29, 1903, on special duty at Tewksbury explosion; then assigned to assist Judge Samuel Hadley of the Lowell municipal court preparing evidence for the inquest on deaths caused by said explosion, until Sept. 10, 1903.

MIDDLESEX COUNTY. — OFFICER GEORGE DUNHAM.

Total number of cases investigated,	36
Total number of arrests,	16
Restitution of stolen property,	\$162
Restitution made in cases of arrest,	680

During the past year my duties have obliged me to work in various parts of the State to a greater extent than in Middlesex County, to which district I am assigned. I have served executive warrants in five cases of fugitives from justice; attended court thirty-nine days as witness or prosecuting officer; served fourteen days on special duty at public gatherings and emergency calls, where large numbers of people were attracted.

BARNSTABLE COUNTY. — OFFICER SIMEON F. LETTENY.

Total number of cases investigated,	95
Total number of arrests,	37
Stolen property recovered,	\$150
Total number of days assigned for special duty,	7

Among the most important cases investigated are the following: —

Alaga Ogala; crime, assault with intent to kill. Found guilty; sentenced to three years in the House of Correction.

David W. Pierce; crime, larceny. Found guilty; sentenced to one year in the House of Correction. This man was brought from the State of Maryland on requisition papers.

John P. Taylor; crime, larceny. Found guilty; sentenced to the Massachusetts Reformatory.

Ensign E. Howes; crime, forgery. Found guilty; sentenced to four years in the House of Correction.

Ira Whiting; crime, larceny. Found guilty; sentenced to the Massachusetts Reformatory.

Alice Shackley; crime, concealing the birth of her child. Found guilty; sentenced to one year in the House of Correction.

Harold S. Kelley ; crime, breaking and entering. Found guilty ; sentenced to the Massachusetts Reformatory.

William R. Young ; crime, adultery. Found guilty ; sentenced to one year in the House of Correction.

Lillian B. Chase ; crime, adultery. Found guilty ; put on probation.

Louie A. Bouter ; crime, lewd and lascivious cohabitation. Found guilty ; sentenced to three months in the House of Correction.

Annie Dill ; crime, lewd and lascivious cohabitation. Found guilty ; sentenced to three months in the House of Correction.

A. P. Newcomb ; crime, soliciting insurance without a license. Found guilty ; sentenced to pay a fine of \$100.

Thomas Walsh ; crime, lewd and lascivious cohabitation. Found guilty ; sentenced to four months in the House of Correction.

Hanna Wright ; crime, lewd and lascivious cohabitation. Found guilty ; sentenced to four months in the House of Correction.

Thomas Wallace ; crime, assault with a dangerous weapon. Found guilty ; sentenced to pay a fine of \$45.

Mike S. Corey ; crime, forgery. Found guilty ; continued for sentence.

Daniel McKinley ; crime, breaking and entering. Found guilty ; continued.

George Wright ; crime, adultery. Found guilty ; placed on probation.

Mary Hallett ; crime, adultery. Found guilty ; placed on probation.

I also worked a great length of time on the Clara A. Morton murder case at Waverley, in which George L. O. Perry was arrested and indicted.

BRISTOL COUNTY. — OFFICER ALFRED B. HODGES.

Total number of cases investigated,	68
Total number of arrests,	19
Total amount of stolen property recovered,	\$410
Total number of days assigned to special duty,	23

Among the most important cases investigated were the following : —

Ira A. Hathaway ; crime, larceny from a building. Found guilty ; sentenced to nine months in the House of Correction.

William Bailey ; crime, larceny from building. Found guilty ; sentenced to nine months in the House of Correction.

Damaso Coreia, *alias* Thomas Silvia ; crime, assault with intent to kill. Found guilty ; sentenced to not more than six nor less than five years in the Massachusetts State Prison.

Charles Mayhew ; crime, breaking and entering and larceny. Found guilty ; sentenced to one year in the House of Correction.

John E. Gallagher, *alias* John E. Dunn, *alias* George Holmes ; crime, murder. Indicted ; case pending. After twenty-five months of almost perpetual work, and the sending out of nearly thirty thousand circulars, covering the greater part of the civilized world, Gallagher, after nearly four years' travelling under the name of George Holmes, was arrested in Seattle and brought back on requisition papers.

Angles Snell ; crime, murder. Indicted ; case pending.

Samuel Joski, *alias* S. Jacobs ; crime, forgery and uttering. Indicted ; case pending.

ESSEX COUNTY. — OFFICER DANIEL W. HAMMOND.

Total number of cases investigated,	35
Total number of arrests,	3
Total number of persons brought before the superior court by subpœna,	16
Total number of days on special duty,	46

Among the most important cases investigated were the following : —

Nicola Fiore ; crime, manslaughter. Found guilty ; sentenced to not less than fourteen nor more than seventeen years in State Prison.

John W. Crawford ; crime, abortion. Jury disagreed.

William C. Holman ; crime, forgery and uttering. Indicted ; case pending.

William H. Burnham ; crime, violation of insurance law. Fined \$100.

Samuel Robinson ; crime, false swearing. Case pending.

A. Herbert Robinson ; crime, false swearing. Case pending.

Benjamin F. Robinson ; crime, false swearing. Case pending.

ESSEX COUNTY. — OFFICER GEORGE C. NEAL.

Total number of cases investigated,	40
Total number of arrests,	28
Total amount of stolen property recovered,	\$111

Among the most important cases investigated were the following : —

George Sweet, *alias* Smerneos ; crime, assault with a dangerous weapon. Found guilty ; sentenced to four months in the House of Correction. Sweet was arrested in New Jersey and extradited.

Albert W. Vinal; crime, breaking and entering. Found guilty; sentenced to eighteen months in the House of Correction.

James W. Robbins; crime, burning a building. Found guilty; placed on probation.

I was detailed to assist in the investigation of the murder of Miss Clara A. Morton in Waverley on the first day of November, 1902.

WORCESTER COUNTY. — OFFICER PELEG F. MURRAY.

Total number of cases investigated,	69
Total number of arrests,	23
Total number of days on special duty,	16

Among the most important cases investigated were the following: —

Carl Frederick Torno; crime, murder. Found guilty; sentenced to State Prison for life.

Benjamin C. Waite; crime, assault with intent to kill. Found guilty of assault with a dangerous weapon; sentenced to the House of Correction for three years.

Edgar F. Sanborn; crime, burning a building. Committed to the insane asylum.

George E. Turcotte; crime, assault with intent to rape. Placed on probation.

Assid Ibriham; crime, murder in the second degree. Found guilty; sentenced to State Prison for not less than seven nor more than eight years.

Husseyan Ibriham; crime, murder in the second degree. Found guilty; sentenced to State Prison for not less than four nor more than five years.

Lorenzo Pizzoti; crime, abduction. Found guilty; sentenced to five months in the House of Correction.

John Farrell; crime, bastardy. Found guilty; sentenced to pay a fine of \$100.

Milton E. Dyer; crime, bigamy. Placed on probation.

Louis Nolo; crime, assault with intent to rape. Found guilty; sentenced to one year in the House of Correction.

Carl Thein, *alias* Hoffman; crime, larceny. Found guilty; placed on probation.

Henry Bouly; crime, putting obstructions on electric car tracks. Found guilty; sentenced to two years in the House of Correction.

William Bouly; crime, putting obstructions on electric car tracks. Found guilty; sentenced to two years in the House of Correction.

Judson H. Fields; crime, cutting line trees. Case pending.

Leon B. Downes; crime, manslaughter. Case pending.

Daniel E. Daley ; crime, manslaughter. Case pending.

James B. Hill ; crime, burning a building. Jury disagreed ; case pending.

Frank Wilson ; crime, murder. This man was used as a witness before the grand jury ; another man was convicted for the crime, and Wilson was committed to the jail.

NORFOLK AND PLYMOUTH COUNTIES. — OFFICER GEORGE C. PRATT.

Total number of cases investigated,	54
Total number of arrests,	10
Total amount of stolen property recovered,	\$385
Total number of days on special duty,	28

Among the most important cases investigated were the following : —

Joseph Harper, Rockland ; crime, manslaughter, — killing Otis W. Brown at Hull. At superior court he pleaded guilty to assault ; paid a fine of \$100.

Case of rebate on insurance policy ; no action taken, by advice of Attorney-General.

J. L. Carter ; crime, forgery. Placed on probation.

Walter N. Randall ; crime, assault. Found guilty ; sentenced to three months in the House of Correction.

George W. Jones, Hull ; crime, violation of Sunday law, — two cases. Found guilty ; paid fine.

William Mitchell, Hull ; crime, maintaining a gambling house. Found guilty ; paid fine.

SUFFOLK COUNTY. — OFFICER FREDERICK A. RHOADES.

Total number of cases investigated,	13
Total number of arrests,	12
Total number of days assigned for special duty,	163

BERKSHIRE AND HAMPDEN COUNTIES. — OFFICER OLIVER L. WOOD.

Total number of cases investigated,	60
Total number of arrests,	11
Value of property recovered,	\$550
Number of days assigned for special duty,	18

Among the most important cases investigated were the following : —

George Huber ; crime, murder. Awaiting trial.

John F. Brazee ; crime, breaking and entering, and larceny. Found guilty ; sentenced to jail for three years.

Thomas Byers ; crime, manslaughter. Case pending.

Albert Shook ; crime, forgery. Fugitive from justice.

Fred St. Martin ; crime, rape. Fugitive from justice.

Dr. J. Homer Miller ; crime, adultery and abortion. Fugitive from justice.

OFFICER WILLIAM H. PROCTOR.

In command of the steamer "Lexington" during the season from May 1 until November.

Total number of cases investigated,	12
Total number of arrests,	4
Total amount of property recovered,	\$420
Lobsters seized and returned to water alive,	6,493
Number of fishing schooners assisted,	2

The steamer has been used for patrolling the waters around Buzzard's Bay nearly all of the time for the enforcement of the law relating to seining. Fish have been very plentiful, and fishing steamers from the States of New York and Rhode Island have been in sight nearly every day. There has not been any attempt to violate the law as far as seining in Buzzard's Bay is concerned. Lobsters are growing scarce, and I would recommend a close season from July 4 to January 1, instead of the present law. During the winter months I have been detailed to work on criminal cases at the Boston office. The following are the most important cases : —

George L. O. Perry ; crime, murder. Died awaiting trial.

Joseph W. Blondin ; crime, murder. Convicted of murder in the second degree ; sentenced to State Prison for life.

Demetrio Bagni ; crime, murder. Awaiting trial.

Angles Snell ; crime, murder. Awaiting trial.

GENERAL OFFENCES PROSECUTED.

Consolidated Statistical Report.

Abduction,	1
Abuse of a female child,	1
Adultery,	8
Arson,	4
Assault and battery,	15
Assault with a dangerous weapon,	3
Assault with intent to kill,	5
Breaking and entering,	11
Breaking and entering and larceny,	1
Breaking and entering, being armed with a dangerous weapon,	1
Burning a building,	3
Burning to defraud an insurance company,	1

Capias,	1
Concealing birth of child,	1
Conspiracy,	3
Escaped prisoner,	1
Forgery,	5
Forgery and uttering,	1
Fugitive from justice,	9
Gaming nuisance,	2
Having burglarious tools in possession,	3
Hotel laws,	3
Illegal gaming,	14
Incest,	1
Keeping a gambling house,	3
Larceny,	23
Larceny from building,	8
Larceny from person,	6
Larceny of horse and team,	2
Larceny of team,	1
Liquor nuisance,	8
Malicious mischief,	3
Manslaughter,	5
Murder,	3
Non-support of family,	1
Obtaining money by false pretences,	2
Obtaining goods by false pretences,	1
Perjury,	2
Poisoning cattle,	1
Polygamy,	2
Putting obstruction on electric railroad track,	2
Rape,	2
Selling a glandered horse,	1
Setting forest fires,	1
Suspicious person,	1
Threat to murder,	1
Violation of the law by not returning certificates of marriage, birth and death to the Secretary of State,	1
Violation of the cattle law,	1
Violation of the clothing law,	1
Violation of the engineers' law,	7
Violation of the fishery law,	6
Violation of the health law,	1
Violation of the insurance law,	4
Violation of the labor law,	5
Violation of the lobster law,	1
Violation of the Sunday law,	8
Violation of the weekly payment law,	1
Witness,	1
Total,	214

ROSTER OF DISTRICT POLICE FORCE.

RUFUS R. WADE, *Chief of the District Police.*JAMES P. CAMPBELL, *Clerk.*JAMES W. HOITT, *Assistant Clerk.*BELLE C. DAVIS, *Clerk, Boiler Inspection Department.*

Central Office, Room 3, State House, Boston.

NAME.	District assigned.	Residence.
John T. White,	District No. 1,	Arlington.
Joseph A. Moore,	District Nos. 2, 3, 6,	Roslindale.
Edwin Y. Brown,	District No. 4,	Winthrop.
Joseph M. Dyson,	District No. 5,	Worcester.
Warren S. Buxton,	District No. 7,	Springfield.
Frederick W. Merriam,	District No. 10,	North Adams.
Henry J. Bardwell,	District No. 1,	Boston.
John E. Foulds,	District No. 6,	Fall River.
Ansel J. Cheney,	District No. 8,	Beverly.
Henry Splaine,	District No. 9,	Boston.
Arlon S. Atherton,	District No. 1,	Wakefield.
Joseph Halstrick,	District No. 2,	Boston.
Samuel L. Ryan,	District No. 3,	Waltham.
Malcolm Sillars,	District No. 4,	Danvers.
Charles A. Dam,	District No. 5,	Worcester.
John F. Tierney,	District No. 6,	Fall River.
James R. Howes,	District No. 7,	Holyoke.
Edward B. Putnam,	District No. 8,	Chelsea.
John J. Sheehan,	District No. 9,	Salem.
Lewis F. F. Abbott,	District No. 10,	North Adams.
Frank C. Wasley,	District No. 11,	Lowell.
Charles E. Burfitt,	Special Duty,	Boston.
John E. Griffin,	Special Duty,	Boston.
John H. Plunkett,	Special Duty,	Boston.
Mary A. Nason,	Special Duty,	Boston.
Mary E. Halley,	Special Duty,	Lawrence.

Boiler Inspection Department.

Everett B. Dyer,	District No. 1,	Medford.
David F. Dyer,	District No. 2,	Fall River.
James B. DeShazo,	District No. 3,	Worcester.
Freeman H. Sanborn,	District No. 4,	Chicopee.
Charles Ferguson,	District No. 5,	Malden.
John H. Kazar,	District No. 6,	Hyde Park.
Louis Amell,	District No. 7,	North Adams.
John McGrath,	District No. 8,	Boston.
Sturgis C. Baxter,	District No. 9,	Boston.
Joseph H. McNeill,	District No. 10,	Melrose.

*Detective Department of the District Police.*Shaw, Joseph E., *Deputy in Charge*, residence, Lynn, Mass.

Dunham, George, residence, Cambridge, Mass., assigned to Middlesex County.

Dexter, Thomas A., residence, Edgartown, Mass., assigned to Nantucket and Dukes counties.

Hammond, Daniel W., residence, Haverhill, Mass., assigned to Essex County.

Hodges, Alfred B., residence, Taunton, Mass., assigned to Bristol County.

Letteney, Simeon F., residence, Hyannis, Mass., assigned to Barnstable County.

McKay, James, residence, Northampton, Mass., assigned to Hampshire and Franklin counties.

Murray, Peleg F., residence, Worcester, Mass., assigned to Worcester County.

Neal, George C., residence, Lynn, Mass., assigned to Essex County.

Pratt, George C., residence, North Abington, assigned to Norfolk and Plymouth counties.

Proctor, William H., residence, Swampscott, Mass., commanding steamer "Lexington," and assigned to general duty.

Rhoades, Frederick A., residence, Malden, assigned to Suffolk County.

Wood, Oliver L., residence, Pittsfield, Mass., assigned to Berkshire and Hampden counties.

Whitney, Jophanus H., residence, Medford, Mass., assigned to Middlesex County.

*Fire Marshal's Department of the District Police.**

Rice, Charles F.,	.	.	.	.	.	.	Somerville, Mass.
Anderson, James,	.	.	.	.	.	.	Springfield, Mass.
Casey, Maurice F.,	.	.	.	.	.	.	Haverhill, Mass.
Crittenden, George F.,	.	.	.	.	.	.	Northampton, Mass.
Dunn, James B.,	.	.	.	.	.	.	Boston, Mass.
Molt, Robert E.,	.	.	.	.	.	.	Millbury, Mass.
Scott, John H.,	.	.	.	.	.	.	Milford, Mass.

* The result of the work of the fire marshal's department is contained in the annual report of the Insurance Commissioner.

REPORTS OF ACCIDENTS.

1903.

REPORTS OF ACCIDENTS IN MANUFACTURING AND MERCANTILE ESTABLISHMENTS.

In the consideration of this subject as a feature in the annual report, recourse to the record of these accidents as reported presents in their order the facts and circumstances of their happening, and, as may naturally be supposed, discloses a similarity as to their causes and results, seemingly inevitable in such occurrences, and a characteristic inseparably belonging to all these reports. The means largely employed of protection from personal injury, in accord with statute requirement, have served with appreciable benefit, and many serious casualties have undoubtedly been averted through such means of precaution. Special and constant attention is enjoined in the enforcement of the laws in relation to the guarding of dangerous machinery, and the inspectors of this department are fully impressed with the importance of that duty. It is due, however, to those having charge or management of works where, in some cases, provisions were inadequate, to note herein that the orders and directions of the inspectors, in most instances, met with ready response, and apparent desire to attain the best possible conditions to insure safety to those in their employ.

The number of accidents reported during the year arising from causes in no way connected with the operation of machinery bear about the same proportion as in preceding years to those which were caused through some form of motive power. But it is this latter class of accidents to which our attention is directed, as the purpose of the statute is clearly to reach such cases. Every report of an accident, whatever may be its origin or source, is recorded, as a strict construction of the statute makes this necessary, nothing contained therein denoting or specifying any particular class. In presenting the facts, nevertheless, in this report, all cases of injury not attributable to machinery are separately

considered, with a general reference to their nature or description, the innumerable causes leading to these mishaps contributing a large percentage in the total number.

Section 17, chapter 106, of the Revised Laws, requiring notices of accidents to be sent to the chief of the district police, is as follows : —

SECTION 17. All manufacturers, manufacturing corporations and proprietors of mercantile establishments shall forthwith send to the chief of the district police a written notice of any accident to an employee while at work in any factory, manufacturing or mercantile establishment operated by them, if the accident results in the death of said employee or in such bodily injury as to prevent him from returning to his work within four days thereafter. The chief of the district police shall forthwith transmit to the sender of such notice a written or printed acknowledgment of the receipt thereof, and he shall keep a record of all accidents so reported to him, of the name of the person injured, of the city or town in which the accident occurred and the cause thereof, and shall include an abstract of said record in his annual report. Whoever fails to send notice of an accident as required by this section shall be punished by a fine of not more than twenty dollars.

The accidents which occurred during the year having their origin in the operation of machinery, and reported in accordance with the statute, number 1,547. This includes all those caused by elevators, hoistways and all contrivances in which motive power had any part. The number of accidents due to causes otherwise than those just mentioned, and previously referred to herein, is 846. The list which follows gives the causes of accident in the former class, stating the number of cases occurring from each cause. The fatal accidents are included in the list, but are particularly and individually mentioned in another part of this report.

Injured by machinery in cotton, woollen and paper mills and shoe factories,	1,115
Injured by machinery in iron works, planing and saw mills and other mechanical establishments,	296
Injured by belting, pulleys and shafting,	45
Injured by being caught between elevator car and flooring, while riding on car or working about same,	40
Injured by falling through elevator well,	6
Injured by fall of elevator car,	3

Injured by bursting of emery wheel,	5
Injured by explosion of gasoline,	1
Injured while cleaning machinery which was in motion, or while attempting to extricate bobbins, waste or other articles entangled in machines (included in figures above given),	513
Fatal accidents (particulars given in another part),	36
Injured through causes not here enumerated,	846

The number noted in the list as from causes not therein enumerated, the accidents occurring in various ways and not due to machinery, constitutes about 35 per cent. of the entire number of cases reported, and the injuries thus received were from causes as follows: 393 were cases wherein the persons injured were workmen doing repairs in or about the factories as carpenters or machinists, or who were employed as laborers in mill yards, storehouses or other places, moving machinery, handling lumber, loading or unloading cars, or performing some other work necessary in the business of such establishments; 113 persons suffered from scalds or burns, being received mainly from the former cause in dye houses, and from the latter in foundries, by molten iron; 57 received splinters in their hands or feet, or were injured by stepping on nails projecting from the floor; 55 sustained injuries by the falling of weights of various kinds; 37 persons were bruised or cut more or less in handling tools, many of them working at the bench; in 22 cases, flying pieces of steel or other materials, flying sparks from anvils and forges, contributed to the injuries; 54 met with accidents by falls from ladders, stagings or other elevations; and falls from other sources added 85 to the list. There were 7 cases wherein persons received injuries while engaged in some form of sport, or "fooling," away from their work; and 3 cases were reported, in each of which the person was overcome by faint or sick spell, resulting in some injury by fall. Of the fatal accidents which happened, there were 20 which occurred under circumstances not connected with machinery, and reference to these will be made in another part.

It will be observed that in the list of causes presented 513 are mentioned as having been injured while occupied in cleaning the machinery when it was in motion, or in attempt-

ing to remove some article, such as waste or a bobbin, from the running machine. Fully one-third of all the accidents reported caused by machinery occurred in this manner. Without assuming that such is the case, it is not unlikely that many more than the number stated met with injuries, the prime cause thereof being want of sufficient care on their part at the particular moment. The number (513) definitely showing the thoughtlessness of so many is ascertained from the contents of the several reports as sent to this office ; but the circumstances stated in many cases, although carelessness is not suggested, would seem to convey the impression that due care exercised in those cases would have materially reduced the number of accidents.

The results attending these occurrences, more or less serious, are mentioned, noting the cases in which loss of some member occurred. The greatest number was in the injuries which occurred to the hand, there being 1,241 cases of this kind, 915 of these confined to the fingers and thumb. In each of 20 cases one finger was lost, and the thumb was lost in each of 2 cases. In one case the thumb and one finger of the right hand were lost. In each of 4 cases two fingers were lost. In 1 case three fingers on the left hand were taken off. One person suffered the loss of all four fingers of the right hand, and another person lost a part of every finger of the left hand. Partial loss of the thumb or one or more fingers occurred in each of 83 cases. There were 24 cases in each of which a finger was broken. Loss of one hand was suffered in each of 3 cases, and in another case a portion of the hand and two fingers were taken off. Seven persons had each a wrist broken ; 248 persons sustained injuries to the arm or shoulder ; 6 persons each lost an arm, in four of the cases the right arm ; 40 suffered broken arms, and 3 dislocations, with a number of others having their arms more or less severely strained. Injuries to the head occurred in 212 cases, in 16 of which scalp wounds were caused, and in 4 of these cases the scalp was torn off. The circumstances in these latter cases are described further on. Three persons suffered from broken jaws, all three having been caught by elevator cars. Another person suffered from concussion of the brain,

caused by fall from elevator. There were 42 cases of injury to the eye, in two of which the eye was lost, caused in one instance by being struck by a flying piece of wire spring, and in the other by a piece of steel. Two other cases reported the eye as probably lost, one in which the eye was struck by a flying shuttle, and in the other by a flying chip of steel. The collar bone was fractured in three cases. The leg was injured in 161 cases, — injuries of this nature, and those to the arm or shoulder, being sustained in most instances by persons engaged as laborers. In one case the left leg was so injured that amputation above the knee was necessary, caused by being caught between car and engine. Fifteen persons had each a leg broken, and 12 others sprained or wrenched ankles; 252 persons sustained injuries to the foot, about a dozen of these being of a serious nature. Twelve cases occurred where one or more ribs were broken; 63 were injured in the back or side; 13 received injuries to the chest, and various injuries of a general bodily nature in other accidents ensued. Aside from those here enumerated, the injuries received were slight in their nature, and resulted in not more than temporary disability.

An employee, a boy, about sixteen years of age, went to the elevator well, and was looking over the gate, which works automatically, when the elevator came down, striking him on the back of the head, crushing his face against the top of the gate, breaking his nose and fracturing his jaw.

While at work in the drying room of a cloth-printing establishment, an operative lost his right arm by being caught on the shafting. The cloth, in passing up to the floor above, was caught in some small gears, and in trying to straighten out the cloth he climbed up and rested his arm on a shaft near by. There was cloth around this arm, and it caught on the shaft, causing him to be carried over the shaft once, when he fell into the arms of another employee. The injuries necessitated the amputation of the arm just above the elbow.

An accident occurred in which a female operative's hair became entangled in set screws on small end of upper cone on fly frame, and her scalp was torn completely off.

An employee had his left hand caught in a machine known

as a "cotton lapper," and the hand was so badly mangled that it had to be amputated at the wrist.

The loss of the right arm at the elbow was suffered in the case of an operator being caught in a machine called "hydro-extractor." This extractor was revolving at the rate of 1,075 revolutions per minute, and the operator, it is said, put his arm into the opening while the machine was in motion, with the unfortunate result as stated.

Another accident resulted in the loss of the right arm at the shoulder, caused by being caught on a revolving shaft. The injured person had occasion to adjust an electric wire, and in doing so used a step-ladder. In reaching for the wire his arm was caught on the shaft, and he was drawn over the same, and his arm was terribly mutilated before he could be released. He was taken to the hospital, where the arm was amputated at the shoulder.

A young man employed in a box factory had one hand caught in a press machine, the hand being so badly injured that amputation at the wrist was necessary.

A young woman employed in the card room of a factory was caught by the hair on the back of her head, and the scalp was completely torn off. The report stated that she undertook to clean the machine underneath while it was in full motion, putting her head underneath the machine, when her head came in contact with the top cone shaft, with the result as mentioned. She was taken to the hospital, and, while her condition at first was considered dangerous, it became more favorable, and the last report stated that she was on the way to recovery.

Still another case of like result was reported. In this latter case the girl was sitting on a box at the end of a fly frame. Near by were some gears running, which were guarded. The girl's hair was done up with a ribbon attached and hanging from the same. This ribbon in some manner was pressed under the guard, coming in contact with the gears, tearing her scalp completely off. Although she too was considered in a dangerous condition, the chances are favorable for her recovery.

In another case a belt came off a pulley and was partly

wound around the shaft. While the steam was being shut off, the man who was injured came along and caught the belt in the loop that was flying around, his idea being to hold the belt, and his hand got fast in the loop, drawing him toward the shaft. His right arm was broken at the elbow, and the forearm was pulled off. He was removed to the hospital for treatment, and report stated was doing well.

A young man, while replacing a belt on a pulley, got his left arm caught in the belt, with the result that the bone just above the elbow was broken, the flesh was torn apart, leaving the greater portion of his arm hanging between the belt and pulley. Surgical attendance was quickly rendered, when a portion of the arm above the elbow was amputated, so as to prevent further trouble, and the injured person was taken to the hospital to receive the necessary care.

An operator in the picker room of a factory suffered the loss of his left arm, the accident being caused in the following manner. He was cleaning the feeder box, and crawled under the machine while it was in motion, putting his left hand and arm into the beater. His arm was badly crushed, and he was taken to the hospital, where it was found necessary to amputate the arm above the elbow. He had worked in the room for nine years, and had been cautioned many times not to clean the machine while it was in motion.

In one accident four men were injured by the falling of a staging on which they were at work; and in another case four men were badly scalded and burned by the bursting of a piston in a steam pump.

In all, there were 2,402 persons injured as reported, of whom 1,978 were males and 424 females.

There were 56 fatal cases. Included in this number were 20 cases in which the causes did not relate to the operation of machinery. These are described as follows: in five cases death resulted from being run over by engine or car on railroad track. Three deaths came from attacks, namely, heart failure, apoplexy and fainting spell, in the last-mentioned case the person falling against a machine, causing his skull to be fractured. There was one case in each of the following causes: fell from trestle to ground while opening coal

cars; killed by flasks, containing castings, falling over and striking him; received fatal injuries by being struck by a falling derrick; fell from an open window in factory building; was fatally injured by a fall on stairway; fell from a tier of boxes, fracturing his skull; was crushed by a pile of fertilizer falling upon him; struck by a lump of coal, while at work unloading coal at wharf; killed by an electric shock in hotel; falling in a building which was in course of construction; falling through a hatchway at a wharf; killed by electric shock while on a street pole.

The other fatal accidents, 36 in number, were from the following causes: 13 persons were caught and crushed by elevator cars; 6 others were fatally injured by falling through elevator wells; 3 were caught and carried over shafting. There was 1 in each of the following cases: caught in machinery while shifting a belt; caught in the belting of a machine, and strangled; caught in a machine in ropewalk; struck by a flying piece of a pulley which had burst; struck in stomach by a piece of pipe, used in putting on a belt; caught and crushed between belt and pulley of machine; struck by piece of lumber thrown from a saw; burned by explosion of oil in boiler; caught in a rotary wheel in a tannery; killed by electric shock; caught between rolls on starching machine; struck by a revolving wheel; caught between mule carriage and roller beam; caught on fly wheel.

Following are the facts in these cases as related in the report of each, with such other circumstances connected therewith as could be learned by the inspectors of this department in their investigations of the same, — the name of the person who was injured fatally being given in each case, the city or town, and the establishment where such accident occurred: —

JOSEPH PACHEICO, Fall River. Merchants Manufacturing Company. January 1. Pacheico was in some manner not known caught in the shafting of the machine known as "drawing frame," and was strangled, his clothing being torn from the upper part of his body and wound around his neck, in which manner he was found lying on the floor. No one witnessed the accident. A short time before he was seen to go to the back of the machine, where

upright cans revolve in opposite directions, and between which are belts on small shafts, running hardly two feet above the floor; and it is supposed that in passing these cans he was caught in the shafting, with the result as above stated.

CHARLES WEKER, Boston. Zion's Grocery Store, 119 Fulton Street. January 16. Weker, while at work on the basement floor, attempted to jump on the elevator car as it was ascending, and was caught between the car and the first floor, receiving injuries from which he died a short time afterward.

EUCLID LAMBERT (or LOMBARD), Worcester. American Steel and Wire Company. January 20. Lambert was painting on the inside of the roof of a one-story building. The main line of shafting ran along the centre of the room, and in reaching over it his clothing was caught and he was carried around the shaft, coming in contact with the timber, causing his death.

BERNHART GEHRING, Lawrence. Arlington Mills. January 25. Gehring was employed as watchman at the mill, and was going his rounds. While in the storehouse he decided to use the elevator in order to reach another floor, and, mistaking the top of the elevator for the car floor, he got on to the same and started the elevator up. Being on the top, or elevator hatch, he was caught and crushed between the top of the car and the cover of the well for the next floor above. He was terribly mangled, his skull was crushed, and arm and ribs broken. He was found dead about noon time, the accident occurring on Sunday. The elevator was operated by water power.

EDWARD FITZGERALD, Boston. Standard Rope and Twine Company. February 11. While at work in ropewalk, following the hauling machine, and evidently about forty feet from said machine, from some cause he was caught in the yarn forming the rope, being carried around with it, and apparently in trying to free himself by catching hold of the ground rope was twisted between the two and carried swiftly around, his head striking the floor and track repeatedly. The rope used to shut off the power was hanging in its place over the walk, but for some unaccountable reason he did not use it. He died about half an hour after the accident.

SIDNEY SMITH, Boston. L. C. Bliss & Co. February 17. The accident occurred on a freight elevator. Smith, who was about eighteen years of age, was evidently trying to stop the elevator,

which he had started from one of the lower floors for the purpose of loading with waste wood. It is supposed the elevator must have got beyond his control in his effort to stop it, and he was caught and carried from the fourth to the fifth floor, and was jammed between the elevator and the flooring. There was no witness to the accident, the first knowledge of the same being the noise heard by the breaking of the gate carried up with him, no outcry being heard. It was necessary to saw away a part of the elevator flooring to release the body from where it had become lodged. The doctor, who arrived ten minutes after the accident occurred, stated that death had been instantaneous.

MICHAEL LYNCH, Worcester. Crompton & Knowles Loom Works. March 4. Lynch was riding on elevator, taking up a load, and when at second floor he stepped backward and fell over the edge of the car, striking on the floor, and from there falling into the elevator well, striking on his head. He was taken up and ambulance called, and conveyed to the hospital, where he died about two hours later. There were automatic hatches on the elevator, but he fell just before they had a chance to close. The report states that it was supposed he had an attack of vertigo.

WALTER M. WOOD, Worcester. Central Market. March 10. Wood was employed as a general hand in the market. He went to the floor below to do some work, going by way of the elevator. On leaving the elevator the sliding door was left open, and the manager of the market, who was with Wood, and who had returned to the elevator in order to go up, found that the elevator had ascended to the floor above. He shipped it so as to have it come down, and, while waiting at the door, Wood passed by him toward the elevator opening, and fell into the well hole, falling a distance of about twelve feet, striking on his head. He was removed to the hospital, and died about three hours later.

ROSE MCCARTHY, Fall River. American Thread Company, Kerr Mills. March 13. This operator was struck by the fragments of a large driving pulley on the main line of shafting, which had burst. She was sitting at the end of her frame, fully ninety feet from where the pulley was located. Two of the pieces coming out of the face of the pulley struck the rapidly moving belt, and were carried along with it at terrific speed, one of the pieces being thrown from the belt, striking the top of a speeder frame, then, bounding off, struck the girl as she was seated on a box.

An ambulance was called, in which she was taken to the hospital, where she died on the evening of the same day the accident occurred.

FREDERIC WEIGLE, Lynn. Eastern Kid Company. March 24. Weigle was assisting another workman to put a belt on a pulley, and was using a piece of an iron steam pipe for the purpose. In trying to push the belt onto the pulley, the piece of pipe struck the pulley and was thrown back, the end of the pipe striking him in the stomach, causing injury which resulted in his death the following day.

ROBERT MOONEY, Boston. Quincy House. March 28. Mooney was employed as a porter at the hotel, and, from the information which could be obtained, he was standing in the baggage part of the elevator, and had signalled the elevator man to go up. In this position his head struck against the top of the doorway through which entrance was had to the elevator from the basement. He was so injured that he died soon after at the hospital. The elevator and gates, as reported by inspector, were in apparently good condition.

ALEX. BERUBE, Salem. Naumkeag Steam Cotton Company. May 13. Berube was on the elevator, which he had started upward in order to go to the second floor of the building, when he fainted and fell face downward with his head and shoulders hanging over the edge of the elevator car, which continued on, crushing him between the platform of the car and the ceiling, causing his death about three-quarters of an hour afterward.

CHARLES A. NORDENE, Salem. American Hide and Leather Company. May 15. Nordene was operating what is known as a "whitening machine," and it seems was trying to run the belt onto the machine, when his head was caught by the belt and was crushed between the belt and pulley, causing instant death.

LORENZO PHILLIPS, Boston. Excelsior Umbrella Company. May 16. Phillips was driver for an express company, and called for a box of umbrellas, going to the third floor of the building for the same by way of the freight elevator. Having obtained the box, he returned to the elevator. The car in the mean time had ascended to the upper floor, and Phillips, in ignorance of this fact, stepped into the elevator well and fell to the bottom, some forty feet, re-

ceiving injuries from which he died in about two hours. The gate was supposed to be automatic, but the elevator coming up did not move the gate, and the counterbalance of gate was about the weight of the gate itself.

ANDREW DELOREY, Watertown. Union Carpet Lining Company. May 24. Delorey, being employed as a fireman, was at work with the engineer, cleaning out the boiler; and as usual, after cleaning out, poured in a pailful of kerosene oil, and then filled the boiler with water. Upon filling the same, it was found to leak around one of the hand-hole plates, and the water was drawn off for the purpose of repairing said plate. From some cause (probably from the torch he carried), the oil remaining in the boiler became ignited, causing an explosion, Delorey being so badly injured therefrom that he died at the hospital the evening of the same day.

GEORGE SAITAIRS, Lowell. American Hide and Leather Company. May 29. Saitairs was employed in the coloring room at the tannery, his work being to take the skins from a rotary wheel. This wheel was ten feet high, with an opening in the side to take out the skins. After the power is shut off, the momentum is such that the wheel revolves several times before it can be stopped. In shutting off the power, Saitairs, instead of employing the usual method to check the wheel in its momentum, put his head and body through the opening, and was caught and hurled against a beam of the frame. He was terribly mangled and crushed, and his neck was broken.

MARIANO FERRY, Fall River. Algonquin Printing Company. July 15. Ferry was caught and crushed by an elevator. He started as elevator man on the morning of the day the accident occurred, and worked through the day. About 9 o'clock in the evening the works shut down, and about 9.30 o'clock the night watchman, in going his rounds, noticed the peculiar position of the elevator, and, on investigation, found the body of Ferry bent double and wedged firmly between the elevator and the floor. The medical examiner was called, and after an examination pronounced death due to strangulation. No one saw the accident, and, therefore, how it happened is a matter of conjecture. It is thought probable, however, that Ferry was sitting on the elevator with his feet hanging down over the edge, and, while the elevator was going up, had one hand on the rope to stop the car when necessary. Being inexperienced, he could not gauge the distance correctly from one floor to the other, and before he knew it the back of his head struck the top floor. The elevator moving so fast, he had no time

to stop it, and was caught and bent double between elevator and flooring. The impact threw off the belt of the elevator, thus stopping its ascent.

SAMUEL M. CROCKER, Boston. Rausch, Ellis & Co. September 2. Crocker was about sixteen years old, and was employed by the firm at their store, 104 South Street. His body was found in the well of the elevator in the rear of the store. The inspector in his report stated that there were no means of knowing how the accident occurred.

JOHN JOHNSON, Worcester. American Steel and Wire Company. September 15. Johnson was employed as a repairer. There was a short piece of rod in a switch pipe, and Johnson took out the pipe, which was about ten feet seven inches long, and walked toward a bench, raising the pipe at the same time. The pipe came in contact with an arc light, and Johnson immediately sank to the floor, unconscious. A doctor was at once sent for, and pronounced Johnson dead.

THOMAS F. LANNON, Lowell. Lowell Bleachery. September 22. Lannon was overseer of the starch room, and met with the accident while attending to the starting of a new machine. He was adjusting a starch mangle, when his right hand and forearm were drawn between a brass roll and a wooden roll, revolving at the rate of one hundred and eighty revolutions per minute, and his head was thrown against an iron plate on the machine. He was taken to the hospital, where he died, six or seven hours later, from the injuries he received. He had worked at the Lowell Bleachery for a long time.

JAMES E. CLARK, Boston. American Soda Fountain Company. September 24. Clark was employed on the sixth floor of the building. He was at the fourth floor, and from there he got on to the elevator with a box to take to the sixth floor. No one saw the accident, but it is supposed that Clark, when he reached the sixth floor, tried to open the door without stopping the elevator car, as the car had ascended to the seventh floor, where it had stopped, and it is thought he must have fallen through the elevator well from the sixth floor. He died from the effects of his injuries before reaching the hospital.

F. G. PERRY, Everett. Cochrane Chemical Company. October 1. Perry was employed as a carpenter, and was at work laying a floor in the engine room, when in some unaccountable manner he was struck by a revolving wheel, fracturing his skull,

resulting in his death a few minutes afterward. The inspector in his report stated that at the time of his visit he found all machinery well guarded.

JOHN HOPE, New Bedford. Butler Mill. October 17. Hope was employed as a back boy, and was about seventeen years of age. It appears that he was helping the mule spinner to put a scavenger band on the roller beam of the mule, and to do this he had to get under the roller beam. In some manner the brake on the mule was released, and the mule carriage pulled in, causing the boy's head to be caught between the carriage and roller beam, cutting off the back part of the scalp and fracturing the skull. He was taken to the hospital, where he died on the evening of the same day.

JOHN A. UPPVALL, Worcester. Svea Publishing Company. October 20. Uppvall was about fifteen years of age, and was employed as an errand boy. He was sent on an errand, and on returning by way of the elevator, when the car reached the floor where he worked, it appears he tried to open the door at that floor while the elevator was running, lifting the rail for that purpose. The door being locked on inside, he failed to open it, and while on the threshold probably lost his hold and fell to the bottom of the elevator well, a distance of four stories. His skull was crushed, and he died in a short time after the accident. Orders had been issued not to use the elevator, and in this case the report states the boy had been told to go by way of the stairs. The inspector stated that the elevator was guarded from top to bottom by rails and closed doors.

JEREMIAH McCARTY, Clinton. Clinton Gas Light Company. October 31. McCarty was engineer at the power house of the company. As he was alone in the engine room at the time of the accident, no one knows exactly how it occurred. It would appear that in passing the fly wheel he fell inside. The wheel makes about two hundred and sixty revolutions per minute. His head was severed from the body. Between the spokes of the wheel there are two rods about three-quarters of an inch in diameter, running from rim to hub, and these rods probably caused his death.

MARGARET CASEY, Boston. United Drug Company. November 3. This girl, about sixteen years of age, was crushed by an elevator. She was sent from the third to the lower floor on some errand. On leaving the lower floor she was not seen again until she was found crushed between the floor and elevator. From all

that could be learned it is supposed that she started the elevator at the first floor, and attempted to get on while the elevator was in motion. Those in the vicinity of the elevator heard a scream, and on reaching there found the girl crushed between the floor and elevator, her head being above the second floor. Upon raising the elevator her body fell into the well. The elevator was guarded by gates, and a notice was posted stating that the elevator was to be used only for freight.

WILLIAM ROBINSON, New Bedford. Pierce Manufacturing Corporation. November 7. Robinson was employed as a filling carrier. He was taking an empty truck down on the elevator, and upon arriving at the floor where he was to stop, started to push the truck off. In doing so he stepped backward and off the elevator car, falling to the ground floor and striking on his head, receiving injuries which caused his death at the hospital on the following day.

CHARLES E. FISHER, Douglas. W. R. Wallis, box factory. November 7. Fisher was employed as a general hand. It appears that he went from the engine room to the cellar, where the driving bolts were, and crawled through or between belting from engine (a very dangerous thing to do), and went to a sliding window. The main line of shafting was close to this window. The place was very dark, and no one was allowed in there except when engine was stopped, and a light used. It was at this window where Fisher was caught on shaft, which at this point has a clutch coupling without a lever. He was carried around the shaft, and one of the workmen, passing outside, saw the form revolving on the shaft and notified the engineer, who shut off the power. Fisher died a few moments afterward. Why he entered this place cannot be known, as he had no duty to perform there at the time, or at any time when the shafting was running.

WILLIAM FITZGERALD, Worcester. Barnard, Sumner & Putnam Company. November 17. Fitzgerald, whose age was given as fourteen years and four months, was sent to the basement of the building to open cases of goods. He left his work there and got on to the freight elevator and ascended with it. From the circumstances it would appear that as the elevator was going up he was bending over and looking down the elevator well, when his head came in contact with the upper part of door, and was caught between the same and the floor of the elevator, killing him instantly. The report states that a stringent rule of the company prohibited all persons from riding on this elevator.

FORFEITED LIQUORS.

Section 80 of chapter 100 of the Revised Laws provides as follows :—

SECTION 80. Any liquor so forfeited shall, by the authority of the written order of the court or trial justice, be forwarded by common carrier to the chief of the district police, who upon receipt of the same shall notify said court or justice thereof. Said officer shall sell the same, and after paying the cost of the transportation of the liquors he shall pay over the net proceeds to the treasurer and receiver general. The officer who serves the order above named shall be allowed therefor fifty cents, but shall not be entitled to receive any travelling fees or mileage on account of the service thereof.

In obedience to the above law, I have received from the officers of the Commonwealth all liquors, and the vessels containing the same, which have been delivered to me as having been seized and forfeited by virtue of said act, giving my receipt for the same.

The quantity received from the cities and towns from Dec. 1, 1902, to Dec. 1, 1903, was :—

Number of seizures, 966
 Quantity of spirituous liquors received, 1,656 gallons, 1 quart.
 Quantity of malt liquors received, 11,150 gallons, 2 quarts, 2 gills.

Appropriations and Expenditures.

	Appropriations.	Expenditures.
Compensation of officers,	\$77,124 19	\$77,043 54
Travel,	24,013 31	19,786 44
Contingent,	2,500 00	2,496 85
	\$103,637 50	\$99,326 83
Amount expended less than appropriation, .	. .	4,310 67

Amount received through boiler inspection department,
 as fees for examination of engineers and inspection of
 boilers, and paid into the State treasury, \$10,977 00

CONCLUSION.

The records of this department furnish abundant testimony of the efficiency of members of the detective department of this force. Their fidelity has been attested by the respective district attorneys under whose direction they have worked in connection with many important criminal cases.

In the inspection department the members of the force have shown fidelity and scrupulous devotion to the interest of the State. I take great pleasure in recording my testimony in their behalf.

I again gratefully acknowledge my indebtedness to the law department of the State for its advice in the interpretation of statutes, and otherwise for my guidance.

Respectfully submitted,

RUFUS R. WADE,
Chief Massachusetts District Police.

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